

ii. If the concentration is equal to a breakpoint, then the index is equal to the corresponding index value in Table 2. However, Equation 1 can still be used. The results will be equal. If the concentration is between two breakpoints, then calculate the index of that pollutant with Equation 1. You must also note that in some areas, the AQI based on 1-hour O_3 will be more precautionary than using 8-hour values (see footnote 1 to Table 2). In these cases, you may use 1-hour values as well as 8-hour values to calculate index values and then use the maximum index value as the AQI for O_3 .

$$I_p = \frac{I_{Hi} - I_{Lo}}{BP_{Hi} - BP_{Lo}} (C_p - BP_{Lo}) + I_{Lo} \quad (\text{Equation 1})$$

Where:

I_p = the index value for pollutant_p

C_p = the truncated concentration of pollutant_p

BP_{Hi} = the breakpoint that is greater than or equal to C_p

BP_{Lo} = the breakpoint that is less than or equal to C_p

I_{Hi} = the AQI value corresponding to BP_{Hi}

I_{Lo} = the AQI value corresponding to BP_{Lo} .

iii. If the concentration is larger than the highest breakpoint in Table 2 then you may use the last two breakpoints in Table 2 when you apply Equation 1.

EXAMPLE

iv. Using Table 2 and Equation 1, calculate the index value for each of the pollutants measured and select the one that produces the highest index value for the AQI. For example, if you observe a PM_{10} value of 210 $\mu\text{g}/\text{m}^3$, a 1-hour O_3 value of 0.156 ppm, and an 8-hour O_3 value of 0.130 ppm, then do this:

a. Find the breakpoints for PM_{10} at 210 $\mu\text{g}/\text{m}^3$ as 155 $\mu\text{g}/\text{m}^3$ and 254 $\mu\text{g}/\text{m}^3$, corresponding to index values 101 and 150;

b. Find the breakpoints for 1-hour O_3 at 0.156 ppm as 0.125 ppm and 0.164 ppm, corresponding to index values 101 and 150;

c. Find the breakpoints for 8-hour O_3 at 0.130 ppm as 0.125 ppm and 0.374 ppm, corresponding to index values 201 and 300;

d. Apply Equation 1 for 210 $\mu\text{g}/\text{m}^3$, PM_{10} :

$$\frac{150 - 101}{254 - 155} (210 - 155) + 101 = 128.$$

e. Apply Equation 1 for 0.156 ppm, 1-hour O_3 :

$$\frac{150 - 101}{0.164 - 0.125} (0.156 - 0.125) + 101 = 140$$

f. Apply Equation 1 for 0.130 ppm, 8-hour O_3 :

$$\frac{300 - 201}{0.374 - 0.125} (0.130 - 0.125) + 201 = 203$$

g. Find the maximum, 203. This is the AQI. The minimal AQI report would read:

v. Today, the AQI for my city is 203 which is very unhealthy, due to ozone. Children and people with asthma are the groups most at risk.

BACKGROUND AND REFERENCE MATERIALS

13. What Additional Information Should I Know?

The EPA has developed a computer program to calculate the AQI for you. The program works with Windows 95, it prompts for inputs, and it displays all the pertinent information for the AQI (the index value, color, category, sensitive group, health effects, and cautionary language). The EPA has also prepared a brochure on the AQI that explains the index in detail (The Air Quality Index), Reporting Guidance (Guideline for Public Reporting of Daily Air Quality) that provides associated health effects and cautionary statements, and Forecasting Guidance (Guideline for Developing an Ozone Forecasting Program) that explains the steps necessary to start an air pollution forecasting program. You can download the program and the guidance documents at www.epa.gov/airnow.

[64 FR 42547, Aug. 4, 1999]

PART 59—NATIONAL VOLATILE ORGANIC COMPOUND EMISSION STANDARDS FOR CONSUMER AND COMMERCIAL PRODUCTS

Sec.

Subpart A [Reserved]

Subpart B—National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings

59.100 Applicability and designation of regulated entity.

59.101 Definitions.

59.102 Standards.

59.103 Container labeling requirements.

59.104 Compliance provisions.

59.105 Reporting requirements.

59.106 Variance.

59.107 Addresses of EPA Regional offices.

59.108 State authority.

59.109 Circumvention.

59.110 Incorporations by reference.

59.111 Availability of information and confidentiality.

Environmental Protection Agency

§ 59.101

TABLE 1 TO SUBPART B—VOLATILE ORGANIC COMPOUND (VOC) CONTENT LIMITS FOR AUTOMOBILE REFINISH COATINGS

Subpart C—National Volatile Organic Compound Emission Standards for Consumer Products

- 59.201 Applicability and designation of regulated entity.
- 59.202 Definitions.
- 59.203 Standards for consumer products.
- 59.204 Innovative product provisions.
- 59.205 Labeling.
- 59.206 Variances.
- 59.207 Test methods.
- 59.208 Charcoal lighter material testing protocol.
- 59.209 Recordkeeping and reporting requirements.
- 59.210 Addresses of EPA Regional Offices.
- 59.211 State authority.
- 59.212 Circumvention.
- 59.213 Incorporations by reference.
- 59.214 Availability of information and confidentiality.

TABLE 1 TO SUBPART C—VOC CONTENT LIMITS BY PRODUCT CATEGORY

TABLE 2 TO SUBPART C—HVOC CONTENT LIMITS FOR UNDERARM DEODORANTS AND UNDERARM ANTIPERSPIRANTS

APPENDIX A TO SUBPART C OF PART 59—FIGURES

Subpart D—National Volatile Organic Compound Emission Standards for Architectural Coatings

- 59.400 Applicability and compliance dates.
- 59.401 Definitions.
- 59.402 VOC content limits.
- 59.403 Exceedance fees.
- 59.404 Tonnage exemption.
- 59.405 Container labeling requirements.
- 59.406 Compliance provisions.
- 59.407 Recordkeeping requirements.
- 59.408 Reporting requirements.
- 59.409 Addresses of EPA Offices.
- 59.410 State authority.
- 59.411 Circumvention.
- 59.412 Incorporations by reference.
- 59.413 Availability of information and confidentiality.

APPENDIX A TO SUBPART D OF PART 59—DETERMINATION OF VOLATILE MATTER CONTENT OF METHACRYLATE MULTICOMPONENT COATINGS USED AS TRAFFIC MARKING COATINGS

TABLE 1 TO SUBPART D—VOLATILE ORGANIC COMPOUND (VOC) CONTENT LIMITS FOR ARCHITECTURAL COATINGS

AUTHORITY: 42 U.S.C. 7511b(e).

SOURCE: 64 FR 48815, Sept. 11, 1998, unless otherwise noted.

Subpart A [Reserved]

Subpart B—National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings

§ 59.100 Applicability and designation of regulated entity.

(a) The provisions of this subpart apply to automobile refinishing coatings and coating components manufactured on or after January 11, 1999 for sale or distribution in the United States.

(b) Regulated entities are manufacturers and importers of automobile refinishing coatings or coating components that sell or distribute these coatings or coating components in the United States.

(c) The provisions of this subpart do not apply to automobile refinishing coatings or coating components meeting the criteria in paragraphs (c)(1) through (c)(6) of this section.

(1) Coatings or coating components that are manufactured (in or outside the United States) exclusively for sale outside the United States.

(2) Coatings or coating components that are manufactured (in or outside the United States) before January 11, 1999.

(3) Coatings or coating components that are manufactured (in or outside the United States) for use by original equipment manufacturers.

(4) Coatings that are sold in non-refillable aerosol containers.

(5) Lacquer topcoats or their components.

(6) Touch-up coatings.

§ 59.101 Definitions.

Adhesion promoter means a coating designed to facilitate the bonding of a primer or topcoat on surfaces such as trim moldings, door locks, and door sills, where sanding is impracticable, and on plastic parts and the edges of sanded areas.

Administrator means the Administrator of the United States Environmental Protection Agency (U.S. EPA) or an authorized representative.

Automobile means passenger cars, vans, motorcycles, trucks, and all other mobile equipment.

Automobile refinish coating component means any portion of a coating, such as a reducer or thinner, hardener, additive, etc., recommended (by its manufacturer or importer) to distributors or end-users for automobile refinishing. The raw materials used to produce the components that are mixed by the end-user to prepare a coating for application are not considered automobile refinish coating components. Any reference to automobile refinishing made by a manufacturer or importer on a container or in product literature constitutes a recommendation for automobile refinishing.

Automobile refinish coating or coating component importer, or importer, means any company, group, or individual that brings automobile refinish coatings or coating components from a location outside the United States into the United States for sale or distribution in the United States.

Automobile refinish coating or coating component manufacturer, or manufacturer, means any company, group, or individual that produces or packages automobile refinish coatings or coating components for sale or distribution in the United States, including an entity which produces or packages such coatings or coating components under a private label for another party.

Automobile refinishing means the process of coating automobiles or their parts, including partial body collision repairs, that is subsequent to the original coating applied at an automobile original equipment manufacturing plant.

Container means the individual receptacle that holds a coating or coating component for storage and distribution.

Cut-in, or jambing, clearcoat means a fast-drying, ready-to-spray clearcoat applied to surfaces such as door jambs and trunk and hood edges to allow for quick closure.

Elastomeric coating means a coating designed for application over flexible parts, such as elastomeric bumpers.

Exempt compounds means specific organic compounds that are not considered volatile organic compounds due to negligible photochemical reactivity. The exempt compounds are specified in § 51.100(s) of this chapter.

Hardener means a coating component specifically designed to promote a faster cure of an enamel finish.

Impact-resistant coating means a coating designed to resist chipping caused by road debris.

Label means any written, printed, or graphic matter affixed to or appearing upon any automobile refinish coating or coating component container or package for purposes of identifying or giving information on the product, use of the product, or contents of the container or package.

Lacquer means a thermoplastic coating which dries primarily by solvent evaporation, and which is resolvable in its original solvent.

Low-gloss coating means a coating which exhibits a gloss reading less than or equal to 25 on a 60° glossmeter.

Mixing instructions means the coating or coating component manufacturer's or importer's specification of the quantities of coating components for mixing a coating.

Mobile equipment means any equipment that is physically capable of being driven or drawn upon a highway including, but not limited to, the following types of equipment: construction vehicles (such as mobile cranes, bulldozers, concrete mixers); farming equipment (wheel tractor, plow, pesticide sprayer); hauling equipment (truck trailers, utility bodies, camper shells); and miscellaneous equipment (street cleaners, golf carts).

Multi-colored topcoat means a topcoat that exhibits more than one color, is packaged in a single container, and camouflages surface defects on areas of heavy use, such as cargo beds and other surfaces of trucks and other utility vehicles.

Pretreatment wash primer means a primer that contains a minimum of 0.5 percent acid, by weight, that is applied directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent coatings.

Primer means any coating applied prior to the application of a topcoat for the purpose of corrosion resistance and/or adhesion.

Primer-sealer means any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and/or

Environmental Protection Agency

§ 59.104

color uniformity and to promote the ability of an undercoat to resist penetration by the topcoat.

Primer-surfacer means any coating applied prior to the application of a topcoat for the purpose of filling surface imperfections in the substrate, corrosion resistance, and/or adhesion of the topcoat.

Reducer means any solvent used to thin enamels.

Underbody coating means a coating designed for protection and sound deadening that is typically applied to the wheel wells and underbody of an automobile.

Single-stage topcoat means a topcoat consisting of only one coating.

Specialty coatings means adhesion promoters, low-gloss coatings, bright metal trim repair coatings, jambing (cut-in) clearcoats, elastomeric coatings, impact resistant coatings, underbody coatings, uniform finish blenders, and weld-through primers.

Thinner means any solvent used to reduce the viscosity or solids content of a coating.

Three-stage topcoat means a topcoat composed of a pigmented basecoat, a midcoat, and a transparent clearcoat.

Topcoat means any coating or series of coatings applied over a primer or an existing finish for the purpose of protection or beautification.

Touch-up coating means a coating applied by brush, air-brush, or nonrefillable aerosol can to cover minor surface damage.

Two-stage topcoat means a topcoat consisting of a pigmented basecoat and a transparent clearcoat.

Uniform finish blender means a coating designed to blend a repaired topcoat into an existing topcoat.

United States means the United States of America, including the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and Commonwealth of the Northern Mariana Islands.

Volatile organic compounds or *VOC* means any compound of carbon, other than those organic compounds that the Administrator has excluded in 40 CFR part 51, §51.100 from this definition.

VOC content means the weight of VOC per volume of coating, calculated

according to the procedures in §59.104(a) of this subpart.

Water hold-out coating means a coating applied to the interior cavity areas of doors, quarter panels and rocker panels for the purpose of corrosion resistance to prolonged water exposure.

Weld-through primer means a primer that is applied to an area before welding is performed, and that provides corrosion resistance to the surface after welding has been performed.

§ 59.102 Standards.

(a) Except as provided in §59.106 of this subpart, any coating resulting from the mixing instructions of a regulated entity must meet the VOC content limit given in table 1 of this subpart. VOC content is determined according to §59.104(a).

(b) Different combinations or mixing ratios of coating components constitute different coatings. For example, coating components may be mixed one way to make a primer, and mixed another way to make a primer sealer. Each of these coatings must meet its corresponding VOC content limit in table 1 of this subpart. If the same combination and mixing ratio of coating components is recommended by a regulated entity for use in more than one category in table 1 of this subpart, then the most restrictive VOC content limit shall apply.

§ 59.103 Container labeling requirements.

Each regulated entity subject to this subpart must clearly display on each automobile refinish coating or coating component container or package, the day, month, and year on which the product was manufactured, or a code indicating such date.

§ 59.104 Compliance provisions.

(a) For the purpose of determining compliance with the VOC content limits in §59.102(a) of this subpart, each regulated entity shall determine the VOC content of a coating using the procedures described in paragraph (a)(1) or (a)(2) of this section, as appropriate.

(1) Determine the VOC content in grams of VOC per liter of coating prepared for application according to its

mixing instructions, excluding the volume of any water or exempt compounds. VOC content shall be calculated using the following equation:

$$\text{VOC} = \frac{(W_v - W_w - W_{ec})}{(V - V_w - V_{ec})}$$

Where:

VOC content = grams of VOC per liter of coating;

W_v = mass of total volatiles, in grams;

W_w = mass of water, in grams;

W_{ec} = mass of exempt compounds, in grams;

V = volume of coating, in liters;

V_w = volume of water, in liters; and

V_{ec} = volume of exempt compounds, in liters.

(2) The VOC content of a multi-stage topcoat shall be calculated using the following equation:

$$\text{VOC}_{\text{multi}} = \frac{\text{VOC}_{\text{bc}} + \sum_{i=0}^M \text{VOC}_{\text{mci}} + 2(\text{VOC}_{\text{cc}})}{M + 3}$$

Where:

$\text{VOC}_{\text{multi}}$ = VOC content of a multi-stage topcoat, in grams of VOC per liter of coating;

VOC_{bc} = VOC content of the basecoat, as determined in paragraph (a)(1) or (f) of this section;

VOC_{mci} = VOC content of midcoat i, as determined in paragraph (a)(1) or (f) of this section;

VOC_{cc} = VOC content of the clearcoat, as determined in paragraph (a)(1) or (f) of this section; and

M = Number of midcoats.

(b) To determine the composition of a coating in order to perform the calculations in paragraph (a) of this section, the reference method for VOC content is Method 24 of appendix A of 40 CFR part 60, except as provided in paragraph (f) of this section. To determine the VOC content of a coating, the regulated entity may use Method 24 of appendix A of 40 CFR part 60, an alternative method as provided in paragraph (f) of this section, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern. The Administrator may require the regulated to conduct a Method 24 analysis.

(c) If a regulated entity recommends that its coating component(s) be combined with coating components of another regulated entity, and if the coating resulting from such a combination does not comply with the VOC content limit in § 59.102 (a) of this subpart, then the former regulated entity is out of compliance, unless the entity submits Method 24 data to the Administrator demonstrating that its recommended combination of coating components meets the VOC content limit in § 59.102(a). If the latter regulated entity does not make the recommendation of such use of the coating components, then that entity is not out of compliance for purposes of that resulting coating.

(d) Pretreatment wash primers: Except as provided in paragraph (f) of this section, the acid weight percent of pretreatment wash primers must be determined using the American Society for Testing and Materials Test Method D 1613–96 (incorporated by reference in § 59.110). If the pigment in a pretreatment wash primer prevents the use of this test method for determining the acid weight percent of the coating, then the test method shall be used for the nonpigmented component of the coating, and the acid weight percent shall be calculated based on the acid content of the nonpigmented component and the mixing ratio of the nonpigmented component to the remaining components recommended by the regulated entity.

(e) Low-gloss coatings: Except as provided in paragraph (f) of this section, the gloss reading of low-gloss coatings must be determined using the American Society for Testing and Materials Test Method D 523–89 (incorporated by reference in § 59.110).

(f) The Administrator may approve, on a case-by-case basis, a regulated entity's use of an alternative method in lieu of Method 24 for determining the VOC content of coatings if the alternative method is demonstrated to the Administrator's satisfaction to provide results that are acceptable for purposes of determining compliance with this subpart.

(g) The Administrator may determine a regulated entity's compliance with the provisions of this subpart

based on information required by this subpart or any other information available to the Administrator.

[63 FR 48815, Sept. 11, 1998; 63 FR 64761, Nov. 23, 1998]

§ 59.105 Reporting requirements.

(a) Each regulated entity must submit an initial report no later than January 11, 1999 or within 180 days of the date that the regulated entity first manufactures or imports automobile refinish coatings or coating components, whichever is later. The initial report must include the information in paragraphs (a)(1) through (a)(4) of this section.

(1) The name and mailing address of the regulated entity.

(2) An explanation of each date code, if such codes are used to represent the date of manufacture, as provided in § 59.103.

(3) The street address of each of the regulated entity's facilities in the United States that is producing, packaging, or importing automobile refinish coatings or coating components subject to the provisions of this subpart.

(4) A list of the categories from table 1 of this subpart for which the regulated entity recommends the use of automobile refinish coatings or coating components.

(b) Each regulated entity must submit an explanation of any new date codes used by the regulated entity no later than 30 days after products bearing the new date code are first introduced into commerce.

§ 59.106 Variance.

(a) Any regulated entity that cannot comply with the requirements of this subpart because of circumstances beyond its reasonable control may apply in writing to the Administrator for a temporary variance. The variance application must include the information specified in paragraphs (a)(1) through (a)(3).

(1) The specific grounds upon which the variance is sought.

(2) The proposed date(s) by which the regulated entity will achieve compliance with the provisions of this subpart. This date must be no later than 5 years after the issuance of a variance.

(3) A compliance plan detailing the method(s) by which the regulated entity will achieve compliance with the provisions of this subpart.

(b) Upon receipt of a variance application containing the information required in paragraph (a) of this section, the Administrator will publish a notice of such application in the FEDERAL REGISTER and, if requested by any party, will hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements of this subpart is necessary and will be granted. If requested, a hearing will be held no later than 75 days after receipt of a variance application. Notice of the time and place of the hearing will be sent to the applicant by certified mail not less than 30 days prior to the hearing. At least 30 days prior to the hearing, the variance application will be made available to the public for inspection. Information submitted to the Administrator by a variance applicant may be claimed as confidential. The Administrator may consider such confidential information in reaching a decision on a variance application. Interested members of the public will be allowed a reasonable opportunity to testify at the hearing.

(c) The Administrator will issue a variance if the criteria specified in paragraphs (c)(1) and (c)(2) are met to the satisfaction of the Administrator.

(1) If complying with the provisions of this subpart would not be technologically or economically feasible, and

(2) The compliance plan proposed by the applicant can reasonably be implemented and will achieve compliance as expeditiously as possible.

(d) Any variance will specify dates by which the regulated entity will achieve increments of progress towards compliance, and will specify a final compliance date by which the regulated entity will achieve compliance with this subpart.

(e) A variance will cease to be effective upon failure of the party to whom the variance was issued to comply with any term or condition of the variance.

(f) Upon the application of any party, the Administrator may review and, for good cause, modify or revoke a variance after holding a public hearing in

accordance with the provisions of paragraph (b) of this section.

§ 59.107 Addresses of EPA Regional Offices.

All requests, reports, submittals, and other communications to the Administrator pursuant to this regulation shall be submitted to the Regional Office of the EPA which serves the State or territory in which the corporate headquarters of the regulated entity resides. These areas are indicated in the following list of EPA Regional Offices.

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Office of Environmental Stewardship, Mailcode: SAA, JFK Building, Boston, MA 02203.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Division of Enforcement and Compliance Assistance, 290 Broadway, New York, NY 10007-1866.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air, Pesticides and Toxics, Management Division, 345 Courtland Street, NE., Atlanta, GA 30365.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), Director, Air, Pesticides and Toxics Division, 1445 Ross Avenue, Dallas, TX 75202-2733.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air and Toxics Division, 726 Minnesota Avenue, Kansas City, KS 66101.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), Director, Air and Toxics Division, 999 18th Street, 1 Denver Place, Suite 500, Denver, Colorado 80202-2405.

EPA Region IX (American Samoa, Arizona, California, Guam, Hawaii, Nevada), Director, Air and Toxics Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Oregon, Idaho, Washington), Director, Air and Toxics Division, 1200 Sixth Avenue, Seattle, WA 98101.

§ 59.108 State Authority.

The provisions in this regulation shall not be construed in any manner to preclude any State or political subdivision thereof from:

(a) Adopting and enforcing any emission standard or limitation applicable to a manufacturer or importer of automobile refinish coatings or components in addition to the requirements of this subpart.

(b) Requiring the manufacturer or importer of automobile refinish coatings or components to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of a facility for manufacturing an automobile refinish coating component.

§ 59.109 Circumvention.

Each manufacturer and importer of any automobile refinish coating or component subject to the provisions of this subpart must not alter, destroy, or falsify any record or report, to conceal what would otherwise be noncompliance with this subpart. Such concealment includes, but is not limited to, refusing to provide the Administrator access to all required records and date-coding information, altering the VOC content of a coating or component batch, or altering the results of any required tests to determine VOC content.

§ 59.110 Incorporations by Reference.

(a) The following material is incorporated by reference in the paragraphs noted in § 59.104. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any changes in these materials will be published in the FEDERAL REGISTER.

(1) ASTM D 1613-96, Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products, IBR approved for § 59.104(d).

(2) ASTM D 523-89, Standard Test Method for Specular Gloss, IBR approved for § 59.104(e).

(b) The materials are available for inspection at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC; and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina, or at the National Archives

Environmental Protection Agency

§ 59.201

and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. The materials are available for purchase from the following address: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA, 19428, telephone number (610) 832-9500.

[64 FR 48815, Sept. 11, 1998, as amended at 69 FR 18803, Apr. 9, 2004]

§ 59.111 Availability of information and confidentiality.

(a) Availability of information. The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) Confidentiality. All confidential business information entitled to protection under section 114(c) of the Act that must be submitted or maintained by each regulated entity pursuant to this section shall be treated in accordance with 40 CFR part 2, subpart B.

TABLE 1 TO SUBPART B OF PART 59—VOLATILE ORGANIC COMPOUND (VOC) CONTENT LIMITS FOR AUTOMOBILE REFINISH COATINGS

Coating category	Grams VOC per liter	Pounds VOC per gallon ^a
Pretreatment wash primers	780	6.5
Primers/primer surfacers	580	4.8
Primer sealers	550	4.6
Single/two-stage topcoats	600	5.0
Topcoats of more than two stages	630	5.2
Multi-colored topcoats	680	5.7
Specialty coatings	840	7.0

^aEnglish units are provided for information only. Compliance will be determined based on the VOC content limit, as expressed in metric units.

Subpart C—National Volatile Organic Compound Emission Standards for Consumer Products

SOURCE: 63 FR 48831, Sept. 11, 1998, unless other noted.

§ 59.201 Applicability and designation of regulated entity.

(a) The provisions of the subpart apply to consumer products manufactured or imported on or after December 10, 1998 for sale or distribution in the United States.

(b) The regulated entity is: the manufacturer or importer of the product; and any distributor that is named on the product label. The manufacturer or importer of the product is a regulated entity for purposes of compliance with the volatile organic compounds (VOC) content or emission limits in § 49.203, regardless of whether the manufacturer or importer is named on the label or not. The distributor, if named on the

label, is the regulated entity for purposes of compliance with all sections of this part except for § 59.203. Distributors whose names do not appear on the label are not regulated entities. If no distributor is named on the label, then the manufacturer or importer is responsible for compliance with all sections of this part.

(c) The provisions of this subpart do not apply to consumer products that meet the criteria specified in paragraph (c)(1) through (c)(7) of this section.

(1) Any consumer product manufacturer in the United States for shipment and use outside of the United States.

(2) Insecticides and air fresheners containing at least 98-percent paradichlorobenzene or at least 98-percent naphthalene.

(3) Adhesives sold in containers of 0.03 liter (1 ounce) or less.

(4) Bait station insecticides. For the purpose of this subpart, bait station insecticides are containers enclosing an insecticidal bait that does not weigh

more than 14 grams (0.5 ounce), where bait is designed to be ingested by insects and is composed of solid material feeding stimulants with less than 5-percent by weight active ingredients.

(5) Air fresheners whose VOC constituents, as defined in §§ 59.202 and 59.203(f), consist of 100-percent fragrance.

(6) Non-aerosol moth proofing products that are principally for the protection of fabric from damage by moths and other fabric pests in adult, juvenile, or larval forms.

(7) Flooring seam sealers used to join or fill the seam between two adjoining pieces of flexible sheet flooring.

§ 59.202 Definitions.

The terms used in this subpart are defined in the Clean Air Act (Act) or in this section as follows:

Administrator means the Administrator of the United States Environmental Protection Agency (EPA) or an authorized representative.

Aerosol cooking spray means any aerosol product designed either to reduce sticking on cooking and baking surfaces or to be directly applied on food for the purpose of reducing sticking on cooking and baking surfaces, or both.

Aerosol product means a product characterized by a pressurized spray system that dispenses product ingredients in aerosol form by means of a propellant (i.e., a liquefied or compressed gas that is used in whole or in part, such as a co-solvent, to expel a liquid or any other material from the same self-pressurized container or from a separate container) or mechanically induced force. "Aerosol product" does not include pump sprays.

Agricultural use means the use of any pesticide or method or device for the control of pests in connection with the commercial production, storage, or processing of any animal or plant crop. "Agricultural use" does not include the sale or use of pesticides in properly labeled packages or containers that are intended for:

- (1) Household use;
- (2) Use in structural pest control; or
- (3) Institutional use.

Air freshener means any consumer product including, but not limited to, sprays, wicks, powders, and crystals

designed for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air. This does not include products that are used on the human body, products that function primarily as cleaning products, disinfectant products claiming to deodorize by killing germs on surfaces, or institutional/industrial disinfectants when offered for sale solely through institutional and industrial channels of distribution. It does include spray disinfectants and other products that are expressly represented for use as air fresheners, except institutional and industrial disinfectants when offered for sale through institutional and industrial channels of distribution. To determine whether a product is an air freshener, all verbal and visual representations regarding product use on the label or packaging and in the product's literature and advertising may be considered. The presence of, and representations about, a product's fragrance and ability to deodorize (resulting from surface application) shall not constitute a claim of air freshening.

All other forms means all consumer product forms for which no form-specific VOC standard is specified. Unless specified otherwise by the applicable VOC standard, "all other forms" include, but are not limited to, solids, liquids, wicks, powders, crystals, and cloth or paper wipes (towelettes).

Automotive windshield washer fluid means any liquid designed for use in a motor vehicle windshield washer system either as an antifreeze or for the purpose of cleaning, washing, or wetting the windshield. "Automotive windshield washer fluid" does not include fluids placed by the manufacturer in a new vehicle.

Bathroom and tile cleaner means a product designed to clean tile or surfaces in bathrooms. "Bathroom and tile cleaner" does not include products specifically designed to clean toilet bowls or toilet tanks.

Carburetor and choke cleaner means a product designed to remove dirt and other contaminants from a carburetor or choke. "Carburetor and choke cleaner" does not include products designed to be introduced directly into the fuel

lines or fuel storage tank prior to introduction into the carburetor, or solvent use regulated under 40 CFR part 63, subpart T (halogenated solvent national emission standards for hazardous air pollutants (NESHAP)).

Charcoal lighter material means any combustible material designed to be applied on, incorporated in, added to, or used with charcoal to enhance ignition. "Charcoal lighter material" does not include any of the following:

- (1) Electrical starters and probes;
- (2) Metallic cylinders using paper tin-der;
- (3) Natural gas; and
- (4) Propane.

Construction and panel adhesive means any one-component household adhesive having gap-filling capabilities that distributes stress uniformly throughout the bonded area resulting in a reduction or elimination of mechanical fasteners.

Consumer means any person who purchases or acquires any consumer product for personal, family, household, or institutional use. Persons acquiring a consumer product for resale are not "consumers" of that product.

Consumer product means any household or institutional product (including paints, coatings, and solvents), or substance, or article (including any container or packaging) held by any person, the use, consumption, storage, disposal, destruction, or decomposition of which may result in the release of VOC. For the purposes of this subpart, consumer product means any product listed in tables 1 or 2 of this subpart.

Contact adhesive means any household adhesive that:

- (1) When applied to two substrates, forms an instantaneous, nonrepositionable bond;
- (2) When dried to touch, exhibits a minimum 30-minute bonding range; and
- (3) Bonds only to itself without the need for reactivation by solvents or heat.

Container or packaging means the part or parts of the consumer product that serve only to contain, enclose, incorporate, deliver, dispense, wrap, or store the chemically formulated substance or mixture of substances that is solely responsible for accomplishing the pur-

poses for which the product was designed or intended. "Container or packaging" includes any article onto or into which the principal display panel is incorporated, etched, printed, or attached.

Crawling bug insecticide means any insecticide product that is designed for use against crawling arthropods including, but not limited to, ants, cockroaches, mites (but not house dust mites), silverfish, or spiders. "Crawling bug insecticide" does not include products for agricultural use or products designed to be used exclusively on humans or animals.

Distributor means any person to whom a consumer product is sold or supplied for the purposes of resale or distribution in commerce.

Double-phase aerosol air freshener means an aerosol air freshener with liquid contents in two or more distinct phases that requires the product container to be shaken before use to mix the phases, producing an emulsion.

Dusting aid means a product designed to assist in removing dust and other soils from floors and other surfaces without leaving a wax or silicone-based coating. "Dusting aid" does not include products that consist entirely of compressed gases for use in electronic or other specialty areas.

Engine degreaser means a cleaning product designed to remove grease, grime, oil, and other contaminants from the external surfaces of engines and other mechanical parts. "Engine degreaser" does not include any solvent used in parts washing equipment, or any solvent use regulated under 40 CFR part 63, subpart T (halogenated solvent NESHAP).

Fabric protectant means a product designed to be applied to fabric substrates to protect the surface from soiling from dirt and other impurities or to reduce absorption of water into the fabric's fibers. "Fabric protectant" does not include silicone-based products whose function is to provide water repellency, or products designed for use solely on fabrics that are labeled "dry clean only."

Flea and tick insecticide means any insecticide product that is designed for

use against fleas, ticks, and their larvae, or their eggs. “Flea and tick insecticide” does not include products that are designed to be used exclusively on humans or animals or their bedding.

Flexible flooring material means asphalt, cork, linoleum, no-wax, rubber, seamless vinyl, and vinyl composite flooring.

Floor polish or wax means a wax, polish, or any other product designed to polish, protect, or enhance floor surfaces by leaving a protective coating that is designed to be periodically replenished. “Floor polish or wax” does not include “spray buff products,” products designed solely for the purpose of cleaning floors, floor finish strippers, products designed for unfinished wood floors, and coatings subject to 40 CFR part 59, subpart D—National Volatile Organic Compound Emission Standards for Architectural Coatings.

Floor seam sealer means any low viscosity specialty adhesive used in small quantities for the sole purpose of bonding adjoining rolls of installed flexible sheet flooring or to fill any minute gaps between and adjoining rolls.

Flying bug insecticide means any insecticide product that is designed for use against flying insects including, but not limited to, flies, mosquitoes, and gnats. “Flying bug insecticide” does not include “wasp and hornet insecticide” or products that are designed to be used exclusively on humans or animals or their bedding.

Fragrance means a substance or mixture of aroma chemicals, natural essential oils, and other functional components that is added to a consumer product to impart an order or scent, or to counteract a malodor.

Furniture maintenance product means a wax, polish, conditioner, or any other product designed for the product designed for the purpose of polishing, protecting, or enhancing finished wood surfaces other than floors. Furniture maintenance product” does not include dusting aids, products designed solely for the purpose of cleaning, and products designed to leave a permanent finish such as stains, sanding sealers, and lacquers.

Gel means a colloid in which the dispersed phase has combined with the

continuous phase to produce a semi-solid material, such as jelly.

General purpose adhesive means any nonaerosol household adhesive designed for use on a variety of substrates. General purpose adhesives do not include contact adhesives or construction and panel adhesives.

General purpose cleaner means a product designed for general all-purpose cleaning, in contrast to cleaning products designed to clean specific substrates in certain situations. “General purpose cleaner” includes products designed for general floor cleaning, kitchen or countertop cleaning, and cleaners designed to be used on a variety of hard surfaces.

Glass cleaner means a cleaning product designed primarily for cleaning surfaces made of glass. Glass cleaner does not include products designed solely for the purpose of cleaning optical materials used in eyeglasses, photographic equipment, scientific equipment, and photocopying machines.

Hair mousse means a hairstyling foam designed to facilitate styling of a coiffure and provide limited holding power.

Hair styling gel means a high-viscosity, often gelatinous product that contains a resin and is designed for the application to hair to aid in styling and sculpting of the hair coiffure.

Hairspray means a consumer product designed primarily for the purpose of dispensing droplets of a resin on and into a hair coiffure to impart sufficient rigidity to the coiffure to establish or retain the style for a period of time.

High-volatility organic compound or HVOC means any organic compound that exerts a vapor pressure greater than 80 millimeters of mercury when measured at 20 degrees Celsius.

Household adhesive means any household product that is used to bond one surface to another by attachment. “Household adhesive” does not include products used on humans or animals, adhesive tape, contact paper, wallpaper shelf liners, or any other product with an adhesive incorporated onto or in an inert substrate.

Household product means any consumer product that is primarily designed to be used inside or outside of living quarters or residences, including

the immediate surroundings, that are occupied or intended for occupation by individuals.

Household use means use of a product in a home or its immediate environment.

Importer means any person who brings a consumer product that was manufactured, filled, or packaged at a location outside of the United States into the United States for sale or distribution in the United States.

Industrial use means use for, or in, a manufacturing, mining, or chemical process or use in the operation of factories, processing plants, and similar sites.

Insecticide means a pesticide product that is designed for use against insects or other arthropods, excluding any product that is:

- (1) For agricultural use; or
- (2) A restricted use pesticide.

Insecticide fogger means any insecticide product designed to release all or most of its content as a fog or mist into indoor areas during a single application. Foggers may target a variety of pests including (but not limited to) fleas and ticks, crawling insects, lawn and garden pests, and flying insects. Foggers are not subject to the specific VOC limitations or other categories of insecticides list in table 1 of this subpart.

Institutional product means a consumer product that is designed for use in the maintenance or operation of an establishment that manufactures, transports, or sells goods or commodities, or provides services for profit; or is engaged in the nonprofit promotion of a particular public, educational, or charitable cause. "Establishments" include, but are not limited to, government agencies, factories, schools, hospitals, sanitariums, prisons, restaurants, hotels, stores, automobile service and parts centers, health clubs, theaters, or transportation companies. "Institutional product" does not include household products and products that are incorporated into or used exclusively in the manufacture or construction of the goods or commodities that are produced by the establishment.

Institutional use means use within the confines of or on property necessary for

the operation of buildings' including, but not limited to, government agencies, factories, sanitariums, prisons, restaurants, hotels, stores, automobile service and parts centers, health clubs, theaters, transportation companies, hospitals, schools, libraries, auditoriums, and office complexes.

Label means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any consumer product package for purposes of branding, identifying, or giving information with respect to the product or to the contents of the package.

Laundry prewash means a product that is designed for application to a fabric prior to laundering and that supplements and contributes to the effectiveness of laundry detergents and/or provides specialized performance.

Laundry starch product means a product that is designed for application to a fabric, either during or after laundering, to impart and prolong a crisp look and may also facilitate ironing of the fabric. "Laundry starch product" includes, but it not limited to, fabric finish, sizing, and starch.

Lawn and garden insecticide means an insecticide product designed primarily to be used in household lawn and garden areas to protect plants from insects or other arthropods.

Liquid means a substance or mixture of substances that flows readily, but, unlike a gas, does not expand indefinitely (i.e., a substance with constant volume but not constant shape). "Liquid" does not include powders or other materials that are composed entirely of solid particles.

Manufacturer means any person who manufactures or processes a consumer product. Manufacturers include:

- (1) Processors who blend and mix consumer products,
- (2) Contract fillers who develop formulas and package these formulas under a distributor's label;
- (3) Contract fillers who manufacture products using formulas provided by a distributor; and
- (4) Distributors who specify formulas to be used by a contract filler or processor.

Nail polish remover means a product designed to remove nail polish or coatings from fingernails or toenails.

Nonagricultural pesticide means and includes any substance or mixture of substances that is a pesticide as defined in section 2(u) of the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136–136y).

Nonresilient flooring means floor of a mineral content that is not flexible. “Nonresilient flooring” includes, but is not limited to, terrazzo, marble, slate, granite, brick, stone, ceramic tile, and concrete.

Oven cleaner means any cleaning product designed to clean and to remove dried food deposits from oven interiors.

Person means an individual corporation, partnership, association, State, any agency, department, or instrumentality of the United States, and any officer, agent, or employee thereof.

Principal display panel(s) means that part, or those parts, of a label that are so designed as to most likely be displayed, presented, shown, or examined under normal and customary conditions of display or purchase. Whenever a principal display panel appears more than once, all requirements pertaining to the “principal display panel” shall pertain to all such “principal display panels.”

Product category means that applicable category which best describes the product as listed in tables 1 or 2 of this subpart and which appears on the product’s principal display panel.

Product form means the form that most accurately describes the product’s dispensing from including aerosols, gels, liquids, pump sprays, and solids.

Pump spray means a packaging system in which the product ingredients are expelled only while a pumping action is applied to a button, trigger, or other actuator. Pump spray product ingredients are not under pressure.

Representative consumer product means a consumer product that is subject to the same VOC limit in § 59.203 as the innovative product.

Restricted use pesticide means a pesticide that has been classified for restricted use under the provisions of section 3(d) of the Federal Insecticide,

Fungicide, and Rodenticide Act (7 U.S.C. 136–136y).

Shaving cream means an aerosol product that dispenses a foam lather intended to be used with a blade or cartridge razor, or other wet-shaving system in the removal of facial or other body hair.

Single-phase aerosol air freshener means an aerosol air freshener with liquid contents in a single homogeneous phase that does not require that the product container be shaken before use.

Solid means a substance or mixture of substances that does not flow or expand readily (i.e., a substance with constant volume such as the particles constituting a powder). “Solid” does not include liquids or gels.

Spray buff product means a product designed to restore a worn floor finish in conjunction with a floor buffing machine and special pad.

Structural waterproof adhesive means an adhesive whose bond lines are resistant to conditions of continuous immersion in fresh or salt water, and that conforms with Federal Specification MMM-A-181 (Type 1, Grade A), and MIL-A-4605 (Type A, Grade A and Grade C).

Underarm antiperspirant means any aerosol product that is intended by the manufacturer to be used to reduce perspiration in the human axilla by at least 20 percent in at least 50 percent of a target population.

Underarm deodorant means any aerosol product that is intended by the manufacturer to be used minimize odor in the human axilla by retarding the growth of bacteria that cause the decomposition of perspiration.

United States means the United States of America, including the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

Usage directions means the text or graphics on the consumer product’s label or accompanying literature that describes to the end user how and in what quantity the product is to be used.

Volatile organic compound or VOC means any compound that meets the

definition of a VOC, as defined under 40 CFR part 51, subpart F, and in subsequent amendments.

Wasp and hornet insecticide means any insecticide product that is designed for use against wasps, hornets, yellow jackets, or bees by allowing the user to spray a high-volume directed stream or burst from a safe distance at the intended pest or its hiding place.

Wax means an organic mixture or compound with low melting point and high molecular weight, which is solid at room temperature. Waxes are generally similar in composition to fats and oils except that they contain no glycerides. "Wax" includes, but is not limited to, substances such as carnauba wax, lanolin, and beeswax derived from the secretions of plants and animals; substances of a mineral origin such as ozocerite, montan, and paraffin; and synthetic substances such as chlorinated naphthalenes and ethylenic polymers.

Wood floor wax means wax-based products for use solely on wood floors.

[63 FR 48815, Sept. 11, 1998; 63 FR 52319, Sept. 30, 1998]

§ 59.203 Standards for consumer products.

(a) The manufacturer or importer of any consumer product subject to this subpart shall ensure that the VOC content levels in table 1 of this subpart and HVOC content levels in table 2 of this subpart are not exceeded for any consumer product manufactured or imported on or after December 10, 1998, except as provided in paragraphs (b) and (c) of this section, or in §§ 59.204 or 59.206.

(b) For consumer products for which the label, packaging, or accompanying literature specifically states that the product should be diluted prior to use, the VOC content limits specified in paragraph (a) of this section shall apply to the product only after the minimum recommended dilution has taken place. For purposes of this paragraph, "minimum recommended dilution" shall not include recommendations for incidental use of a concentrated product to deal with limited special applications such as hard-to-remove soils or stains.

(c) For those consumer products that are registered under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. section 136-136y) (FIFRA), the compliance date of the VOC standards specified in paragraph (a) of this section is December 10, 1999.

(d) The provisions specified in paragraphs (d)(1) through (d)(4) of this section apply to charcoal lighter materials.

(1) No person shall manufacture or import any charcoal lighter material after December 10, 1998 that emits, on average, greater than 9 grams of VOC per start, as determined by the procedures specified in § 59.208.

(2) The regulated entity for a charcoal lighter material shall label the product with usage directions that specify the quantity of charcoal lighter material per pound of charcoal that was used in the testing protocol specified in § 59.208 for that product unless the provisions in either paragraph (e)(2)(i) or (e)(2)(ii) of this section apply.

(i) The charcoal lighter material is intended to be used in fixed amounts independent of the amount of charcoal used, such as paraffin cubes; or

(ii) The charcoal lighter material is already incorporated into the charcoal, such as certain "bag light," "instant light," or "match light" products.

(3) Records of emission testing results for all charcoal lighter materials must be made available upon request to the Administrator for enforcement purposes within 30 days of receipt of such requests.

(4) If a manufacturer or importer has submitted records of emission testing of a charcoal lighter material to a State or local regulatory agency, such existing records may be submitted under paragraph (d)(3) of this section in lieu of new test data, provided the product formulation is unchanged from that which was previously tested. Such previous testing must have been conducted in accordance with the test protocol described in § 59.208 or a test protocol that is approved by the Administrator as an alternate.

(e) Fragrances incorporated into a consumer product up to a combined level of 2 weight-percent shall not be

§ 59.204

40 CFR Ch. I (7–1–05 Edition)

included in the weight-percent VOC calculation.

(f) The VOC content limits in table 1 of this subpart shall not include any VOC that:

(1) Has a vapor pressure of less than 0.1 millimeters of mercury at 20 degrees Celsius; or

(2) Consists of more than 12 carbon atoms, if the vapor pressure is unknown; or

(3) Has a melting point higher than 20 degrees Celsius and does not sublime (i.e., does not change directly from a solid into a gas without melting), if the vapor pressure is unknown.

(g) The requirements of paragraph (a) of this Section shall not apply to those VOC in antiperspirants or deodorants that contain more than 10 carbon atoms per molecule and for which the vapor pressure is unknown, or that have a vapor pressure of 2 millimeters of mercury or less at 20 degrees Celsius.

(h) a manufacturer or importer may use the vapor pressure information provided by the raw material supplier as long as the supplier uses a method to determine vapor pressure that is generally accepted by the scientific community.

(i) For hydrocarbon solvents that are complex mixtures of many different compounds and that are supplied on a specification basis for use in a consumer product, the vapor pressure of the hydrocarbon blend may be used to demonstrate compliance with the VOC content limits of this section. Identification of the concentration and vapor pressure for each such component in the blend is not required for compliance with this subpart.

§ 59.204 Innovative product provisions.

(a) Upon notification to the Administrator, a consumer product that is subject to this subpart may exceed the applicable limit in table 1 or 2 of this subpart if the regulated entity demonstrates that, due to some characteristic of the product formulation, design, delivery systems, or other factors, the use of the product will result in equal or less VOC emissions that specified in paragraph (a)(1) or (a)(2) of this section.

(1) The VOC emissions from a representative consumer product, as de-

scribed in § 59.202, that complies with the VOC standards specified in § 59.203(a); or

(2) The calculated VOC emissions from a noncomplying representative product, if the product had been reformulated to comply with the VOC standards specified in § 59.203(a). The VOC emissions shall be calculated by using Equation 1.

$$E_R = E_{NC} \times \frac{VOC_{STD}}{VOC_{NC}} \quad \text{Equation 1}$$

Where

E_R =The VOC emissions from the noncomplying representative product, had it been reformulated.

E_{NC} =The VOC emissions from the noncomplying representative product in its current formulation.

VOC_{STD} =The VOC standard specified in § 59.203(a).

VOC_{NC} =The VOC content of the noncomplying product in its current formulation.

(b) If a regulated entity demonstrates to the satisfaction of the Administrator that the equation in paragraph (a)(2) of this section yields inaccurate results due to some characteristic of the product formulation or other factors, an alternate method that accurately calculates emissions may be used upon approval of the Administrator.

(c) A regulated entity shall notify the Administrator in writing of its intent to enter into the market an innovative product meeting the requirements of paragraph (a) of this section. The Administrator must receive the written notification by the time the innovative product is available for sale or distribution to consumers. Notification shall include the information specified in paragraph (c)(1) and (c)(2) of this section.

(1) Supporting documentation that demonstrates the emissions from the innovative product, including the actual physical test methods used to generate the data and, if necessary, the consumer testing undertaken to document product usage;

(2) Any information necessary to enable the Administrator to establish enforceable conditions for the innovative product, including the VOC content of the innovative product expressed as a

weight-percentage, and test methods for determining the VOC content.

(d) At the option of the regulated entity, the regulated entity may submit a written request for the Administrator's written concurrence that the innovative product fulfills the requirements of paragraph (a) of this section. If such a request is made, the Administrator will respond as specified in paragraphs (d)(1) through (d)(3) of this section.

(1) The Administrator will determine within 30 days of receipt whether the documentation submitted in accordance with paragraph (d) of this section is complete.

(2) The Administrator will determine whether the innovative product shall be exempt from the requirements of § 59.203(a) within 90 days after an application has been deemed complete. The applicant and the Administrator may mutually agree to a longer time period for reaching a decision, and additional supporting documentation may be submitted by the applicant before a decision has been reached. The Administrator will notify the applicant of the decision in writing and specify such terms and conditions that are necessary to insure that emissions from the product will meet the emissions reductions specified in paragraph (a) of this section, and that such emissions reductions can be enforced.

(3) If an applicant has been granted an exemption to a State or local regulation for an innovative product by a State or local agency whose criteria for exemption meet or exceed those provided for in this section, the applicant may submit the factual basis for such an exemption as part of the documentation required under paragraph (d) of this section. In such case, the Administrator will make the determination required under this paragraph within 45 days after the applications is considered complete.

(e) In granting an exemption for a product, the Administrator will establish conditions that are enforceable. These conditions may include the VOC content of the innovative product, dispensing rates, application rates, and any other parameters determined by the Administrator to be necessary. The Administrator will also specify the test

methods for determining conformance to the conditions established, including criteria for reproducibility, accuracy, and sampling and laboratory procedures.

(f) For any product for which an exemption has been granted pursuant to this section, the regulated entity to whom the exemption was granted shall notify the Administrator in writing within 30 days after any change in the product formulation or recommended product usage directions, and shall also notify the Administrator within 30 days after the regulated entity learns of any information that would alter the emissions estimates submitted to the Administrator in support of the exemption application.

(g) If lower VOC content limits are promulgated for a product category through any subsequent rulemaking, all exemptions granted under this section for products in the product category shall no longer apply unless the innovative product has been demonstrated to have VOC emissions less than the applicable revised VOC content limits.

(h) If the Administrator determines that a consumer product for which an exemption has been granted no longer meets the VOC emissions criteria specified in paragraph (a) of this section for an innovative product, the Administrator may modify or revoke the exemption as necessary to assure that the product will meet these criteria. The Administrator will not modify or revoke an exemption without first affording the applicant an opportunity for a public hearing to determine if the exemption should be modified or revoked.

[63 FR 48815, Sept. 11, 1998; 63 FR 52319, Sept. 30, 1998]

§ 59.205 Labeling.

(a) The container or package of each consumer product that is subject to this subpart shall clearly display the day, month, and year on which the product was manufactured, or a code indicating such date. The requirements of this provision shall not apply to products that are offered to consumers free of charge for the purposes of sampling the product.

(b) In addition, the container or package for each charcoal lighter material that is subject to this subpart shall be labeled according to the provisions of § 59.203(d)(2).

§ 59.206 Variances.

(a) Any regulated entity who cannot comply with the requirements of this subpart because of extraordinary circumstances beyond reasonable control may apply in writing to the Administrator for a variance. The variance application shall include the information specified in paragraph (a)(1) through (a)(3) of this section.

(1) The specific grounds upon which the variance is sought.

(2) The proposed date(s) by which compliance with the provisions of this subpart will be achieved. Such date(s) shall be no later than 5 years after the issuance of a variance; and

(3) A compliance plan detailing the method(s) by which compliance will be achieved.

(b) Upon receipt of a variance application containing the information required in paragraph (a) of this section, the Administrator will publish a notice of such application in the FEDERAL REGISTER and, if requested by any party, will hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements of this subpart is necessary and will be granted. If requested, a hearing will be held no later than 75 days after receipt of a variance application. Notice of the time and place of the hearing will be sent to the applicant by certified mail not less than 30 days prior to the hearing. At least 30 days prior to the hearing, the variance application will be made available to the public for inspection. Information submitted to the Administrator by a variance applicant may be claimed as confidential. The Administrator may consider such confidential information in reaching a decision on a variance application. Interested members of the public will be allowed a reasonable opportunity to testify at the hearing.

(c) The Administrator will grant a variance if the criteria specified in paragraphs (c)(1) and (c)(2) of this section are met.

(1) If there are circumstances beyond the reasonable control of the applicant so that complying with the provisions of this subpart by the compliance date would not be technologically or economically feasible, and

(2) The compliance plan proposed by the applicant can be implemented and will achieve compliance as expeditiously as possible.

(d) Any variance order will specify a final compliance date by which the requirements of this subpart will be achieved and increments of progress necessary to assure timely compliance.

(e) A variance shall cease to be effective upon failure of the regulated entity to comply with any term or condition of the variance.

(f) Upon the application of any party, the Administrator may review, and for good cause, modify or revoke a variance after holding a public hearing in accordance with the procedures described in paragraph (b) of this section.

§ 59.207 Test methods.

Each manufacturer or importer subject to the provisions of § 59.203(a) shall demonstrate compliance with the requirements of this subpart through calculation of the VOC content using records of the amounts of constituents used to manufacture the product.

§ 59.208 Charcoal lighter material testing protocol.

(a) Each manufacturer or importer of charcoal lighter material subject to this subpart shall demonstrate compliance with the applicable requirements of § 59.203(d) using the procedures specified in this section. Any lighter material that has received certification from California South Coast Air Quality Management District (SCAQMD) under their Rule 1174, Ignition Method Compliance Certification Testing Protocol, will be considered as having demonstrated compliance with the applicable requirements of this subpart using the procedures in this section.

(b) The manufacturer or importer shall obtain from the testing laboratory conducting the testing, a report of findings, including all raw data sheets/charts and laboratory analytical data. The testing must demonstrate that

VOC emissions resulting from the ignition of the barbecue charcoal are, on average, less than or equal to 9 grams per start. The manufacturer or importer shall maintain the report of findings.

(c) When a charcoal lighter material does not fall within the testing guidelines of this protocol, the protocol may be modified following a determination by the Administrator that the modified protocol is an acceptable alternative to the method described in this section and written approval of the Administrator.

(d) *Meteorological and environmental criteria.* (1) Testing shall be conducted under the following conditions:

(i) Inlet combustion air temperature is 16 to 27 degrees Celsius (60 to 80 degrees Fahrenheit) with a relative humidity of 20 to 80 percent;

(ii) The charcoal and lighter material are stored 72 hours before testing in a location with a relative humidity between 45 and 65 percent, and a temperature between 18 and 24 degrees Celsius (65 to 75 degrees Fahrenheit); and

(iii) The outside wind speed, including gusts, may be no more than 16 kilometers per hour (10 miles per hour) if the test stack is exhausted outdoors, or, if the test stack is exhausted indoors, indoor air must be stagnant.

(2) Temperature and relative humidity of the combustion air shall be continuously monitored during the test. Temperature and relative humidity of the place where the charcoal and lighter material are stored prior to the test shall be monitored and recorded during the 72 hours immediately prior to the test. If the stack is exhausted outdoors, the continuous outdoor wind speed monitor shall be observed or recorded continuously during testing. If the wind speed monitor is manually observed rather than electronically recorded, the maximum wind speed observed during the test shall be recorded.

(e) *Definitions.* For the purposes of this test protocol, the following definitions shall apply:

(1) *Baseline VOC emissions* (E_b) means the 3.6 grams (0.008 pounds) per start of subject VOC mass emissions (calculated as CH_2) resulting from the ignition of charcoal by electric probe.

(2) *Emission limit for VOC* means 9 grams per start of resultant VOC emissions (E_r), (expressed as CH_2).

(3) *Equivalent* means equipment that has been demonstrated to meet or exceed the performance, design, and operation specifications of the prescribed equipment. A demonstration that equipment or a test method is a suitable alternative requires written approval from the Administrator prior to compliance testing, based on an evaluation of comparative performance specifications and/or actual performance test data.

(4) *Ignition* means the ready-to-cook condition of the charcoal determined by the temperature above the charcoal, the organic vapor concentration measured by the continuous organic emission monitor, and percent ash.

(5) *Ignition VOC emissions* (e_i)—means the grams (pounds) per start of total subject VOC mass emissions (expressed as CH_2) resulting from the ignition of charcoal by the lighter material undergoing evaluation, including both charcoal and lighter material emissions.

(6) *labeled directions* means those directions affixed to the charcoal lighter material which specify:

(1) The amount of lighter material to use per kilogram (or pound) of charcoal, unless the lighter material is already impregnated or treated in the charcoal;

(2) How to use or apply the lighter material; and

(3) How and when to light the lighter material.

(7) *Percent ash* means a qualitative observation of the ratio of visible charcoal surface area ignited (grayish/white ash) to total charcoal surface area times 100.

(8) *Reference VOC emissions* (E_{rp})—means the grams (pounds) per start of subject VOC mass emissions (calculated as CH_2) resulting from the ignition of charcoal by the reference electric probe during the testing.

(9) *Resultant VOC emissions* (E_r)—means the ignition VOC emission (E_i) less the reference VOC emissions (E_{rp}) plus baseline emissions (E_b).

(10) *Start* means a 25-minute period commencing from the instant that emissions may be released from the lighter material, either by evaporation

or combustion, and further characterized such that by the end of said 25-minute period, ignition is achieved.

(f) *Test structure, equipment specifications, and reference materials.* (1) The test structure is to be located in a building or fabricated total enclosure (i.e., with enclosed sides and top). The enclosure shall be such that there are no constant or intermittent air flows within it that cause fluctuations in the stack velocity and/or disruptions of air flow patterns within the test chamber containing the reference grill. (WARNING: If the stack is vented into the building enclosure, caution must be taken to avoid carbon monoxide poisoning and the reduction of oxygen.)

(2) Test structure components. The following test structure components, as shown in figures 1 and 2 of Appendix A of this subpart, shall be used:

(i) Test chamber—Standard large, prefabricated fireplace manufactured by Marco Δ ,¹ Model No. C41CF, with flue damper removed; or a fabricated structure with the same dimensions. Spacers are required at the rear of the test chamber to ensure a constant 5-centimeter (2-inch) distance between the reference grill and the rear wall of the test chamber.

(ii) Test stack—25-centimeter (10-inch) diameter galvanized steel ducting with velocity traverse port holes located approximately 8 diameters downstream from the stack outlet of the fireplace chamber and sampling ports located approximately 2½ diameters downstream of the velocity traverse ports.

(iii) Fan—25-centimeter (10-inch) diameter axial fan (duct fan) capable of maintaining an air velocity of 140 ± 9 meters per minute (450 ± 30 feet per minute) and located in the stack approximately 3 diameters downstream of the sampling ports.

(iv) Test stack insulation—The stack shall be insulated with fiberglass blanket insulation (or equivalent) with a minimum R-value of 6.4, that totally surrounds the stack from the top of the fireplace to the level of the blower which minimizes temperature gra-

dients in the stack and prevents hydrocarbons from condensing on the stack wall.

(v) Stack mounts—Supports for fixing in position the stack velocity measurement device for measuring reference point velocity readings and the continuous organic emission monitor probe/meter.

(vi) Blower speed control—A rheostat for controlling voltage to the fan.

(3) Test equipment and materials. The following test equipment and materials shall be used:

(i) Continuous recording device—A YEWA model 4088 dot matrix, roster scanning chart recorder, Omega strip recorder with a Strawberry Tree Data Acquisition System, or equivalent, shall be used to continuously (6-second cycle) record temperatures, velocity, and continuous organic emission monitor output signals. The recording may be done manually, recording temperature using a digital potentiometer (20-second intervals), reference point velocity with a Pitot tube (20-second intervals), and continuous organic emission monitor readings with the analyzer's meter (10-second intervals).

(ii) Grill temperature probe—A type “K” thermocouple silver soldered to a 7.6 centimeter (3-inch) square brass plate 0.083-centimeter (0.033 inches) thick painted flat black using high temperature (> 370 degrees Celsius [> 700 degrees Fahrenheit]) paint; set on an adjustable stand to maintain 11 centimeters (4.5 inches) above the maximum height of the briquette pile and made such that it can be removed and replaced within the chamber.

(iii) Stack temperature probe—The Kurz Δ digital air velocity meter or a type “K” thermocouple shall be used.

(iv) Stack velocity measurement device—The velocity in meters (feet) per minute for the reference point using a Kurz Δ digital air velocity meter, Davis Δ DTA 4000 vane anemometer, or equivalent to method 1A of 40 CFR part 60, appendix A.

(v) Continuous organic emissions monitor—Century Δ Model 128 Organic Vapor Analyzer, Ratfisch Δ RS55 total hydrocarbon analyzer, or equivalent, with response in parts per million (ranges 0 to 10 parts per million, 0 to

¹NOTE: Mention of trade names or specific products does not constitute endorsement by the EPA.

100 parts per million, 0 to 1,000 parts per million).

(vi) Temperature and humidity monitor—A chart recorder type with humidity accuracy of ± 3 percent from 15 to 85 percent.

(vii) Wind speed and direction monitor—A wind speed and direction device meeting a tolerance of ± 10 percent.

(viii) Analytical balance—An electronic scale with a resolution of ± 2 grams.

(ix) Charcoal stacking ring—Rigid metal cylinder 21.6 centimeters (8.5 inches) in diameter with indicators to determine that the pile of briquettes does not exceed 12.7 centimeters (5 inches) in height.

(x) Camera—To document ignition condition of charcoal at the end of each start.

(xi) Particulate filter—Nupro Δ inline filter, Catalog Number SS-4FW-2 with 0.64 centimeter ($\frac{1}{4}$ -inch) Swagelok inlet and outlet or equivalent.

(xii) Barbecue Grill—The charcoal shall be ignited in a Weber Δ “Go Anywhere” barbecue grill (Model Number #121001), 39.4 centimeters \times 24 centimeters \times 12.7 centimeters (15.5 inch \times 9.5 inch \times 5.0 inch) with the grate 4.4 centimeters (1.75 inches) above the bottom of the grill, or another grill that meets these specifications. The grill shall be set on its bottom when placed in the test chamber and all grill air vents shall be in full open position.

(xiii) Electric probe—A 600-watt electric probe shall be used for electric probe ignition tests.

(xiv) Untreated charcoal—The laboratory conducting the testing shall purchase “off the shelf” untreated charcoal from a retail outlet. Charcoal shall not be provided by the manufacturer of the charcoal lighter material to be tested or by the charcoal manufacturer. The charcoal to be used is Kingsford Δ “Original Charcoal Briquets.” All untreated charcoal used in the certification testing of a single ignition source is to come from the same lot as indicated by the number printed on the bag.

(xv) Treated or impregnated charcoal—If the charcoal lighter material to be tested is a substance used to treat or impregnate charcoal, the regulated entity shall provide to the lab-

oratory conducting the tests a sample of impregnated charcoal. The sample shall be impregnated or treated barbecue charcoal that is ignited either outside of package or ignited by the package. If commercially available, the independent testing laboratory conducting the test shall purchase “off the shelf” from a retail outlet.

(g) *Sampling and analytical methods.*

(1) Gas volumetric flow rate. Conduct a full velocity traverse using the stack velocity measurement device as shown in figure 3 of this Appendix A to this Subpart, or use Method 1A of 40 CFR part 60, appendix A. Continuously record a velocity reference point reading during each test run using a chart recorder or once every 20 seconds if using Method 1A. Calculate the volumetric flow rate using the gas velocity, moisture content, and the stack cross-sectional area. For the purposes of this protocol, the static pressure shall be assumed to be atmospheric, the molar density correction factor in the stack to be 1.0, and the moisture content to be 2 percent.

(2) Integrated VOC sample. Collect integrated VOC gas samples at the sampling port in the exhaust stack using a 40 CFR part 60, appendix A, Method 25 Total Combustion Analysis (TCA) sampling apparatus consisting of two evacuated 9-liter tanks, each equipped with flow controllers, vacuum gauges, and probes, as shown in figure 4 of Appendix A of this Subpart. Use 40 CFR part 60, appendix A, Method 25, SCAQMD Method 25.1 (incorporated by reference—§59.213 of this subpart), or equivalent, for analysis. Carbon monoxide, carbon dioxide, methane, and non-methane organic carbon are analyzed by the TCA and TCA/Flame Ionization Detector (FID) methods. Oxygen content is determined by gas chromatography using a thermal conductivity detector. Clean particulate filters between use by heating to 760 degrees Celsius (1400 degrees Fahrenheit) while using compressed air as a carrier for cleaning and purging.

(3) Continuous organic emissions monitor. A continuous organic emissions monitor which uses a continuous FID shall be used for each test run to measure the real time organic concentration of the exhaust as methane.

Record the emission monitor response in parts per million continuously during the sampling period using a chart recorder or at least once every 10 seconds. The VOC analyzer shall be operated as prescribed in the manufacturer's directions unless otherwise noted in this protocol.

(h) *Pretest procedure.* (1) Charcoal lighter material—charcoal. Before each test run, remove charcoal from a sealed bag that has been stored for at least 72 hours in a humidity and temperature controlled room which satisfies the requirements of paragraph (d)(1) of this section and weight out 0.9 kilograms (2 pounds) of charcoal briquettes, to the nearest whole briquette over 0.9 kilograms (2 pounds), of uniform shape with no broken pieces using an analytical balance. Reseal the bag. Charcoal must be ignited within 10 minutes after removal from bag. A sealed or resealed bag of charcoal cannot be stored at the test site for greater than 45 minutes. It must be returned to a humidity and temperature controlled room from 72 hours. The lighter material must be purchased, stored, weighed, and handled the same as the barbecue charcoal.

(i) For the reference VOC emission tests using an electric probe, place a single layer of charcoal, slightly larger than the area/circle of the electric probe heating element, onto the grate. Place the heating element on top of this first layer and cover the heating element with the remaining charcoal briquettes.

(ii) For the ignition VOC emissions tests, arrange the briquettes on the barbecue grate in the manner specified by the ignition manufacturer's directions. If these manufacturer's directions do not specify a stacking arrangement for the briquettes, randomly stack the briquettes in a pile using the stacking ring described in paragraph (f)(3)(ix) of this section.

(2) Charcoal lighter material—or impregnated charcoal. Store, handle, weigh, and stack barbecue charcoal that is designed to be lit without the packaging, the same as in paragraph (h)(1) of this section. For those products which require both the package and charcoal be lit, weigh the whole package—do not remove charcoal. Weigh an empty package (not the same

one to be used during the test). Subtract the package weight from the overall weight of the package and charcoal. The full package and empty package must be stored, handled, and weighed the same as in paragraph (h)(1) of this section. If the difference (the charcoal weight) is between 0.7 to 1.4 kilograms (1.5 to 3.0 pounds), the test may proceed. The emissions measured (E) in Equation 5 of paragraph (k)(7) of this section must be adjusted to a 0.9 kilogram (2-pound) charge. Place packaged barbecue charcoal on the grate in the manner specified by the manufacturer's directions.

(3) Initial meteorological and environmental criteria in paragraph (d) shall be complied with.

(4) The stack velocity must be set before each day of testing at 140 ± 9 meters per minute (450 ± 30 feet per minute) by performing a velocity traverse as specified in paragraph (g)(1) of this section. The velocity will be attained by adjusting the axial fan speed using a rheostat.

(5) The fireplace shall be conditioned at the start of each day before sampling tests by using a grill ignited by the electric probe. If a time period of over 60 minutes between sampling test runs occur, the condition step must be repeated.

(6) Before each test run, leak check the continuous organic emissions monitor by blocking the flow to the probe. Allow the instrument to warm up for the duration specified by the manufacturer's directions. Select the 0 to 100 parts per million range. Check the battery level and hydrogen pressure. Zero with hydrocarbon-free air (<0.1 parts per million hydrocarbons as methane) span with 90 parts per million methane in ultra pure air. Zero and span another instrument selection range if needed for test purposes.

(7) Before the testing program begins, establish a point of average concentration of organics in the stack by using a continuous organic emissions monitor and a grill with charcoal ignited by the electric probe 40 minutes after initial release of emissions. Record the continuous organic emissions monitor traverse data.

(8) Prepare the integrated VOC sampling equipment and perform the required leak checks. Fit the probes with nozzles housing two micron particulate filters. Insert the probes and nozzles into the sampling port to draw a sample of the exhaust gas from the point of average organic concentration as determined from the continuous organic emissions monitor sample traverse described in paragraph (h)(4) of this section. Also, position the nozzles such that they point downstream in the stack. Obtain the samples concurrently and continuously over the test run.

(9) Insert the continuous organic emissions monitor probe into the sampling port to draw a sample of the exhaust gas from the point of average organic concentration as determined from the continuous organic emissions monitor sample traverse described in paragraph (h)(7) of this section.

(i) *Test procedure.* The labeled directions, as defined in paragraph (e) of this section, shall be followed throughout the course of the testing. In cases where the directions are incompatible with this protocol, circumvent the intent of this protocol, or are unclear (subject to different interpretations) and inadequate, the Administrator must be informed in writing of the nature of the conflict, as well as the proposed resolution, prior to commencing testing. When the labeled directions for a charcoal lighter material do not fall within the testing guidelines of this protocol, the protocol may only be modified upon written approval of the Administrator.

(1) Place the bottom of the barbecue grill on the floor of the fireplace, 5 centimeters (2 inches) from the rear wall. Ignite charcoal as specified by manufacturer's labeled directions.

(2) For electric probe ignition, carefully remove probe without disturbing charcoal after 10 minutes of operation.

(3) For fluid ignition, simultaneously match light fluid on charcoal and fluid that has fallen to the bottom of the grill.

(4) Place the grill temperature probe 11 centimeters (4.5 inches) above the top of the charcoal immediately after the charcoal lighter material flame goes out, or before, if the lighter material does not flame.

(5) Conduct at least six test runs for both the electric probe ignition and for the lighter material being evaluated. Alternate these lighter material for all 12 runs. All runs must be conducted over 3 consecutive days or less. Alternatively, baseline emissions testing (using the electric probe) may be applied to other test runs provided the test runs occur within 4 months of the baseline testing. Integrated VOC sampling and continuous organic emissions monitoring begin for each test run when the charcoal lighter material and/or materials start to generate/release organics (this will be the time of pouring for lighter fluids and the time of ignition for most other ignition sources). Option: Because the manufacturer of treated or impregnated charcoal supplies both the lighter material and barbecue charcoal, they may apply the 9 grams VOC per start emission limit as an absolute value without an adjustment for the VOC emissions from an electric probe.

(6) Sampling ends for each test run when all the following conditions are met:

(i) The temperature 11 centimeters (4.5 inches) above the maximum height of the briquette pile, using the grill temperature probe described in paragraph (d)(3)(ii) of this section, is at least 93 degrees Celsius (200 degrees Fahrenheit);

(ii) The continuous organic emissions monitor is reading below 30 parts per million for at least 2 minutes;

(iii) The test sampling has continued for 25 minutes (but not more) and

(iv) The charcoal surface is 70 percent covered with ash (to be documented with photograph on top and 60 degrees above the horizon).

(7) During the sampling test runs, temperatures (excluding ambient) and continuous organic emission monitor readings shall be recorded and shall comply with the requirements in paragraph (b) of this section. Humidity, wind speed, and ambient temperature readings shall be monitored and shall comply with the requirements in paragraph (b) of this section.

(8) Collect one blank sample for VOC and one ambient air sample during one run of each day per paragraph (k) of this section.

(j) *Post-run procedure.* (1) Record temperatures (including ambient), humidity, wind speed, and continuous organic emissions monitor reading.

(2) Record the drift using zero and span gases. Leak check and span the continuous organic emissions monitor as described in paragraph (h)(6) of this section for the next run.

(3) Leak check and disassemble the integrated VOC sampling equipment as described in Method 25 of 40 CFR part 60, appendix A or SCAQMD Method 25.1 (incorporated by reference—see § 59.213 of this subpart), or equivalent.

(4) Thoroughly clean grill surfaces of all residue before conducting next ignition run.

(k) *Calculations.* Calculations shall be carried out to at least one significant digit beyond that of the acquired data, and then rounded off after final calculation to two significant digits for each run. All rounding off of numbers should be in accordance with the American Society for Testing and Materials (ASTM) E 380-93, Standard Practice for Use of the SI International System of Units, procedures (incorporated by reference—see § 59.213 of this subpart).

(1) Calculate the average stack reference point temperature during sampling (t_{sr}).

(2) Calculate the average measured velocities (in meters per minute [feet per minute]): Traverse (u_t), traverse reference point (u_{tr}), and reference point during sampling (u_{sr}).

(3) Calculate the corrected average sampling velocity (u_s) by applying Equation 2:

$$u_s = u_{sr} \frac{u_t}{u_{tr}} \quad \text{Equation 2}$$

(4) Calculate the average flow rate (Q_s) in cubic meters per minute (cubic feet per minute) by applying Equation 3:

$$Q_s = u_s A \quad \text{Equation 3}$$

Where

A=Duct cross-sectional area, (square meters [square feet])

(5) Correct the flow rate to dry standard conditions (Q_{ds}) by applying Equation 4. Assume the static pressure to be atmospheric and the molar density correction factor to be 1.0

$$Q_{ds} = \frac{T_s}{(T_s + t_{sr})} (1 - H) Q_s \quad \text{Equation 4}$$

Where

T_s =289 K (520 R)

T_s =273 K (460 R)

H=Percent moisture-100
=0.02

(6) Calculate the average total gaseous non-methane organic carbon for each duplicate sample run analyzed.

(7) Calculate the grams (pounds) of VOC as CH_2 emitted per start (normalized to 0.9 kilograms [2 pounds] of charcoal) for each run using Equation 5:

$$E = \frac{A}{B} * \frac{C}{10^6} * D * d * \frac{N}{M} Q_{ds} \quad \text{Equation 5}$$

Where

E=Emissions of VOC per start for each test run (grams VOC/start [pounds VOC/start])

A=Hydrocarbon molecular weight

=14.0268 grams per gram-mole (14.0268 pounds per pound-mole)

B=Carbon number

=1

C=Average concentration for each duplicate run of total gaseous nonmethane organic compounds as CO_2 (parts per million, from lab analysis sheet)

D=Sampling duration

=25 minutes

d=Molar density of gas at standard conditions

=42.33 gram-mole per cubic meter (0.0026353 pound-mole per cubic foot)

N=Normalized mass (0.9 kilograms [2 pounds])

M=Mass of charge (kilograms [pounds])

(8) Calculate the average VOC emissions for each lighter material tested. Identify and discard statistical outliers. Note a minimum of five valid results are required for a determination. This procedure for eliminating an outlier may only be performed once for each lighter material tested.

(9) Using Equation 6, calculate the resultant VOC emissions per start (E_r) and determine if it is less than or equal to the 9 grams VOC per start emission limit.

$$E_r = e_i - e_{ep} + E_b \quad \text{Equation 6}$$

Where

e_i =Average emissions of VOC per start from the charcoal lighter material being evaluated (grams VOC/start [pounds VOC/start] expressed as CH₂)

e_{ep} =Average reference VOC emissions per start from the ignition by electric probe (grams VOC/start [pounds VOC/start] expressed as CH₂)

=0 grams VOC/start (0 pounds VOC/start) for treated or impregnated charcoal

E_b =Standard baseline VOC emissions per start from the ignition by electric probe (expressed as CH₂)

=0 grams VOC/start (0 pounds VOC/start) for treated or impregnated charcoal

=3.6 grams VOC/start (0.008 pounds VOC/start) for all other charcoal lighter material

(1) *Recordkeeping.* A record of the following charcoal lighter material compliance test information shall be kept for at least 5 years:

(1) Real time temperature and continuous organic emissions monitor readings from continuous chart recorder and/or manual reading of temperatures and the continuous organic emissions monitor output.

(2) A description of quality assurance/quality control (QA/QC) procedures followed for all measuring equipment and calibration test data.

(3) A description of QA/QC procedures followed for all sampling and analysis equipment and calibration test data.

(4) Time and quantity of blanks and ambient air samples.

(5) Chain of custody for samples.

(6) Labeled directions.

(7) Field notes and data sheets.

(8) Calculation/averaging sheets/printouts.

(9) Sample (in its normal package from the same lot) of barbecue charcoal and lighter material used for testing.

(10) Formulation of lighter material tested (indicate if the information is to be handled confidentially).

(11) Photographs documenting charcoal surface ash coverage.

(m) *Quality Assurance/Quality Control (QA/QC) Requirements.* The QA/QC guidelines in the EPA's Quality Assistance Handbook (EPA 600.4-77-027b) shall be followed. In addition, the following procedures shall be used:

(1) A blank sample for VOC shall be performed once each day, during the start period of one of the lighter mate-

rials, using the integrated VOC sampling apparatus.

(2) An ambient air sample for VOC shall be taken once each day, during the start period of one of the lighter materials, using the integrated VOC sampling apparatus with NuproΔ 2 micron filters.

(3) Traceability certificates shall be provided for all calibration gases used for the continuous organic emissions monitor and integrated VOC analysis.

(4) Grill temperature probe shall be calibrated using the procedures in ASTM Method E220-86 (incorporated by reference as specified in United States § 59.213).

(5) Supply documentation for place of purchase (or origin if experimental) and chain of custody for lighter material tested. Documentation to be included for both treated and impregnated charcoal.

(6) Supply documentation for place of purchase and chain of custody for untreated charcoal.

[63 FR 48815, Sept. 11, 1998; 63 FR 52319, Sept. 30, 1998]

§ 59.209 Recordkeeping and reporting requirements.

(a) The distributor that is named on the product label shall maintain the records specified in paragraphs (a)(1) and (a)(2) of this section, unless the manufacturer or importer has submitted to the Administrator a written certification that the manufacturer or importer will maintain the records for the distributor in accordance with paragraph (a)(3) of this section. If no distributor is named on the label, the manufacturer or importer must maintain the specified records. The records must be retained for at least 3 years and must be in a form suitable and readily available for inspection and review.

(1) Records or formulations being manufactured or imported on or after December 10, 1998 for all consumer products subject to § 59.213(a), or December 10, 1999 for all consumer products subject to § 59.203(c) and

(2) Accurate records for each batch of production, starting on December 10, 1998 for all consumer products subject to § 59.203(a) or December 10, 1999 for all consumer products subject to

§ 59.203(c), of the weight-percent and chemical composition of the individual product constituents.

(3) By providing this written certification to the Administrator, the certifying manufacturer accepts responsibility for compliance with the recordkeeping requirements in paragraphs (a)(1) and (a)(2) of this section with respect to any products covered by the written certification. Failure to maintain the required records may result in enforcement action by the EPA against the certifying manufacturer in accordance with the enforcement provisions applicable to violations of these provisions by regulated entities. The certifying manufacturer may revoke the written certification by sending a written statement to the Administrator and the regulated entity giving at least 90 days notice that the certifying manufacturer is rescinding acceptance of responsibility for compliance with the recordkeeping requirements listed in this paragraph. Upon expiration of the notice period, the regulated entity must assume responsibility for maintaining the records specified in this paragraph. Written certifications and revocation statements, to the Administrator from the certifying manufacturer shall be signed by the responsible official of the certifying manufacturer, provide the name and address of the certifying manufacturer, and be sent to the appropriate EPA Regional Office at the addresses listed in § 59.210 of this subpart. Such written certifications are not transferable by the manufacturer.

(b) If requested by the Administrator, product VOC content must be demonstrated to the Administrator's satisfaction to comply with the VOC content limits presented in § 59.203(a).

(c) Each manufacturer or importer subject to the provisions of § 59.203(d) shall maintain records specified in either paragraph (c)(1) or (c)(2) of this section for each charcoal lighter material.

(1) Test report from each certification test performed as specified in § 59.208(b) and all information and data specified in § 59.208(l); or

(2) Records of emission testing, which was performed by a method determined by the Administrator to be an accept-

able alternative to that described in § 59.208, previously submitted to a State or local regulatory agency.

(d) The distributor that is named on the product label, or if no distributor is named on the label, the manufacturer or importer, shall submit by the applicable compliance date, or within 30 days after becoming a regulated entity, a one-time Initial Notification Report including the information specified in paragraphs (d)(1) through (d)(5) of this section.

(1) Company name;

(2) Name, title, phone number, address, and signature or certifying company official;

(3) A list of product categories and subcategories subject to § 59.203 for which the company is currently the regulated entity;

(4) A description of date coding systems, clearly explaining how the date of manufacture is marked on each sales unit of subject consumer products; and

(5) The name and location of the designated recordkeeping agent, if the records specified in paragraphs (a)(1) and (a)(2) are to be maintained by the manufacturer.

(e) If a regulated entity changes the date coding system reported according to paragraph (d)(4) of this section, the regulated entity shall notify the Administrator of such changes within 30 days following the change.

(f) If requested by the Administrator, the following information shall be made available within 30 days after receiving the request:

(1) Location of facility(ies) manufacturing, importing, or distributing subject consumer products;

(2) A list of product categories and subcategories, as found in tables 1 and 2 of this subpart, that are manufactured, imported, or distributed at each facility; and

(3) Location where VOC content records are kept for each subject consumer product.

(g) Each manufacturer or importer subject to the innovative product provisions in § 49.204 shall submit notifications as indicated in § 59.204(d) and (e).

Environmental Protection Agency

§ 59.213

§ 59.210 Addresses of EPA Regional Offices.

All requests, reports, submittals, and other communications to the Administrator pursuant to this regulation shall be submitted to the Regional Office of the EPA which serves the State or territory in which the corporate headquarters of the regulated entity resides. These areas are indicated in the following list of EPA Regional Offices:

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Office of Ecosystem Protection, J.F.K. Federal Building, Boston, MA 02203-2211.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Division of Environmental Planning and Protection, 290 Broadway, New York, NY 10007.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air, Radiation, and Toxics Division, 841 Chestnut Building, Philadelphia, PA 19107.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air, Pesticides, and Toxics Management Division, 61 Forsyth Street, Atlanta, GA 30303.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), Director, Multimedia Planning and Permitting Division, 1445 Ross Avenue, Dallas, TX 75202-2733.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air, RCRA, and Toxics Division, 726 Minnesota Avenue, Kansas City, KS 66101.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), Director, Office of Pollution Prevention, State, and Tribal Assistance, 999 18th Street, Suite 500, Denver, Colorado 80202-2466.

EPA Region IX (American Samoa, Arizona, California, Guam, Hawaii, Nevada) Director, Air Divisions, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Oregon, Idaho, Washington), Director, Office of Air Quality, 1200 Sixth Avenue, Seattle, WA 98101.

§ 59.211 State authority.

(a) The provisions in this regulation shall not be construed in any manner to preclude any State or political subdivision thereof from:

(1) Adopting and enforcing any emission standard or limitation applicable to a regulated entity.

(2) Requiring the regulated entity to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of a facility for manufacturing a consumer product.

(b) [Reserved]

§ 59.212 Circumvention.

No regulated entity subject to these standards shall alter, destroy, or falsify any record or report to conceal what would otherwise be noncompliance with these standards. Such concealment includes, but is not limited to refusing to provide the Administrator access to all required records and date-coding information, altering the percent VOC content of a product batch, or altering the results of any required performance tests.

§ 59.213 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference in the paragraphs noted in § 59.207. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any changes in these materials will be published in the FEDERAL REGISTER. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC 20460, the EPA Library (MD-35), U.S. EPA, Research Triangle Park, NC 27711, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(b) The materials listed below are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA, 19103; SCAQMD Subscription Services, P.O. Box 4932; 21865 Copley

§ 59.214

40 CFR Ch. I (7–1–05 Edition)

Drive, Diamond Bar, CA 91765–0932; or University Microfilms International, 300 North Zeeb Road, Ann Arbor MI, 48106.

(1) ASTM Method E220–86 Standard Method for Calibration of Thermocouples by Comparisons Techniques, incorporation by reference (IBR) approved for § 59.208(m)(4).

(2) ASTM Method E380–82 Metric Practice, IBR approved for § 59.208(k).

(3) SCAQMD Method 25.1, March 1989 Determination of Total Gaseous Non-Methane Organic Emissions as Carbon (amended February 26, 1991) IBR approved for § 59.208(g)(2).

[63 FR 48831, Sept. 11, 1998, as amended at 69 FR 18803, Apr. 9, 2004]

§ 59.214 Availability of information and confidentiality

(a) Availability of information. Specific reports or records required by this subpart are not available to the public. The Administrator will, upon request, provide information as to the compliance status of a product or regulated entity.

(b) Confidentiality. All confidential business information entitled to protection under section 114(c) of the CAA that must be submitted or maintained by a regulated entity pursuant to this section shall be treated in accordance with 40 CFR part 2, Subpart B.

TABLE 1 TO SUBPART C—VOC CONTENT LIMITS BY PRODUCT CATEGORY

Product category	VOC content limit (weight-percent VOC)
Air fresheners:	
Single-phase	70
Double-phase	30
Liquids/pump sprays	18
Solids/gels	3
Automotive windshield washer fluid	35
Bathroom and tile cleaners:	
Aerosols	7
All other forms	5
Carburetor and choke cleaners	75
Cooking sprays—aerosol	18
Dusting aids:	
Aerosols	35
All other forms	7
Engine degreasers	75
Fabric protectants	75
Floor polishes/waxes:	
Products for flexible flooring materials	7
Products for nonresilient flooring	10
Wood floor wax	90
Furniture maintenance products-aerosol	25
General purpose cleaners	10
Glass cleaners:	
Aerosols	12
All other forms	8
Hairsprays	80
Hair mousses	16
Hair Styling gels	6
Household adhesives:	
Aerosols	75
Contact	80
Construction and panel	40
General purpose	10
Structural waterproof	15
Insecticides:	
Crawling bug	40
Flea and tick	25
Flying bug	35
Foggers	45
Lawn and Garden	20
Laundry prewash:	
Aerosols/solids	22
All other forms	5
Laundry starch products	5
Nail polish removers	85

Product category	VOC content limit (weight-percent VOC)
Oven cleaners:	
Aerosols/pump	8
Liquids	5
Shaving creams	5

TABLE 2 TO SUBPART C—HVOC ¹ CONTENT LIMITS FOR UNDERARM DEODORANTS AND UNDERARM ANTIPERSPIRANTS

Product category	Percent HVOC content limit (weight-percent HVOC)
Underarm antiperspirants—aerosol	60
Underarm deodorants—aerosol	20

¹ High-volatility organic compound (HVOC) are VOC with vapor pressure greater than 80 millimeters of mercury at 20 degrees Celsius.

APPENDIX A TO SUBPART C OF PART 59—FIGURES

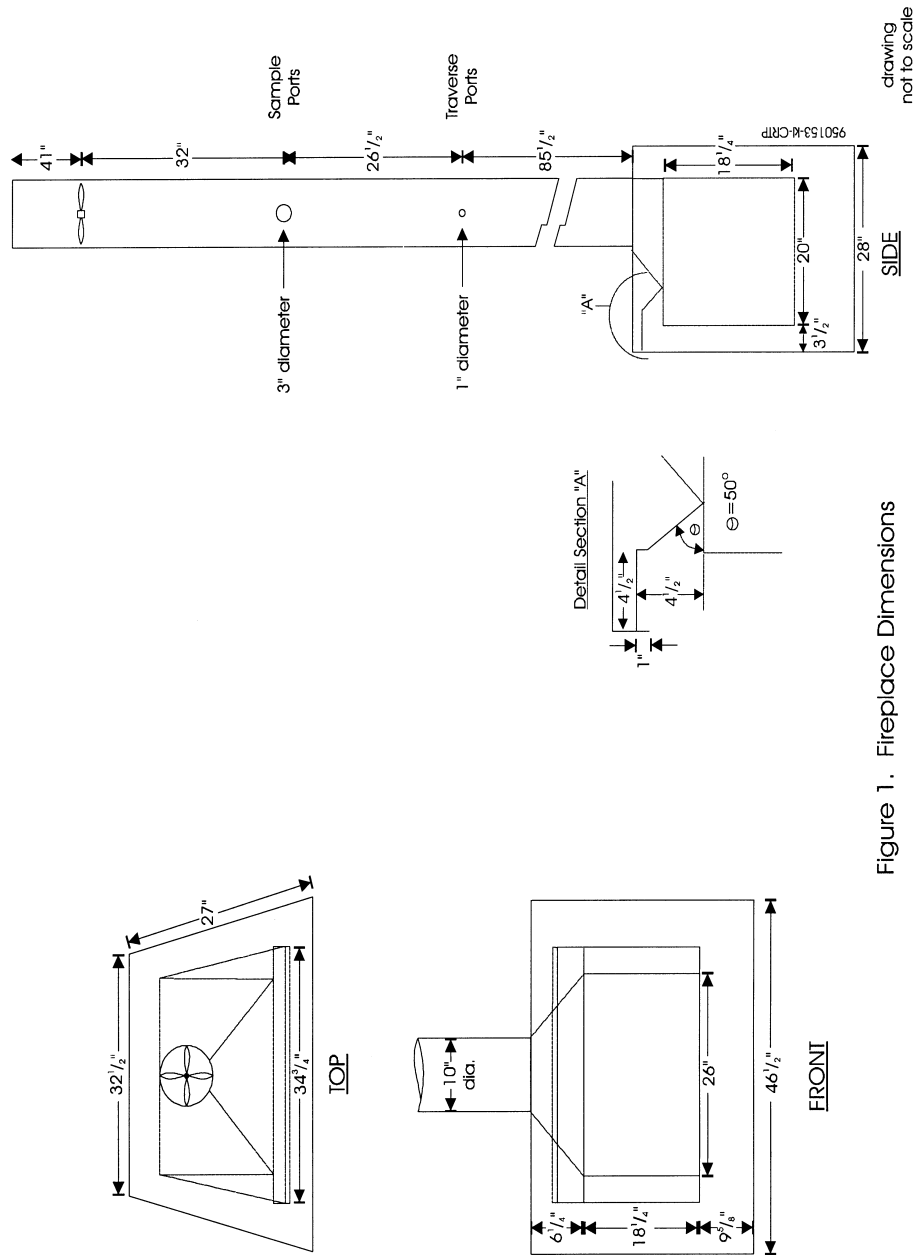


Figure 1. Fireplace Dimensions

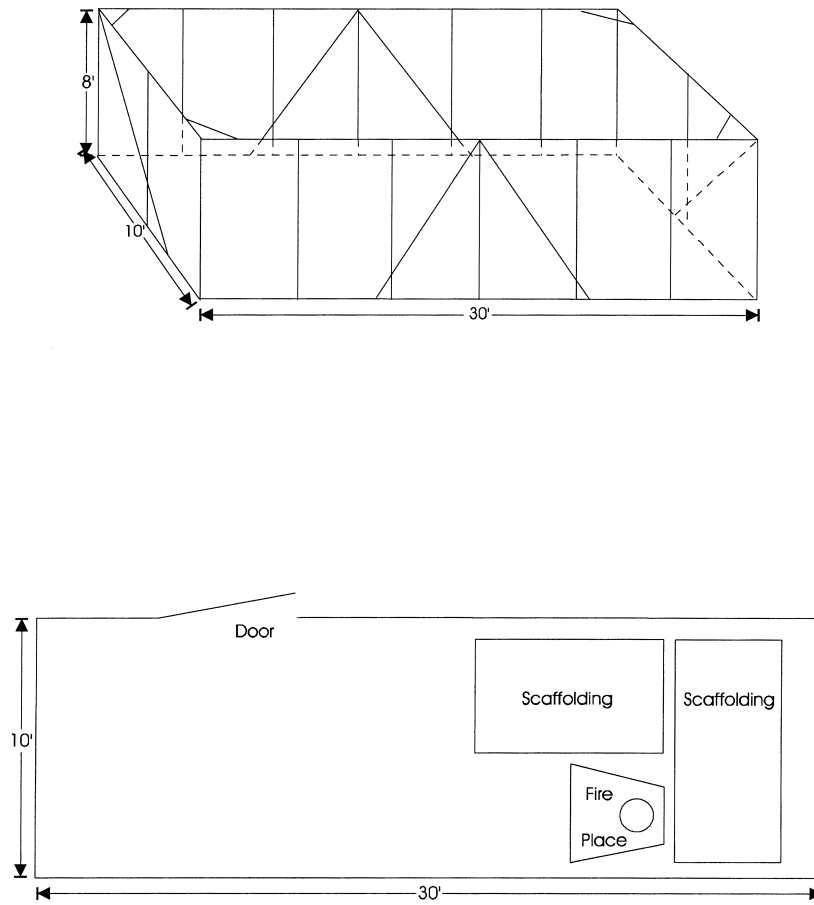


Figure 2. Suggested Enclosure Design

950154-4-CRIP

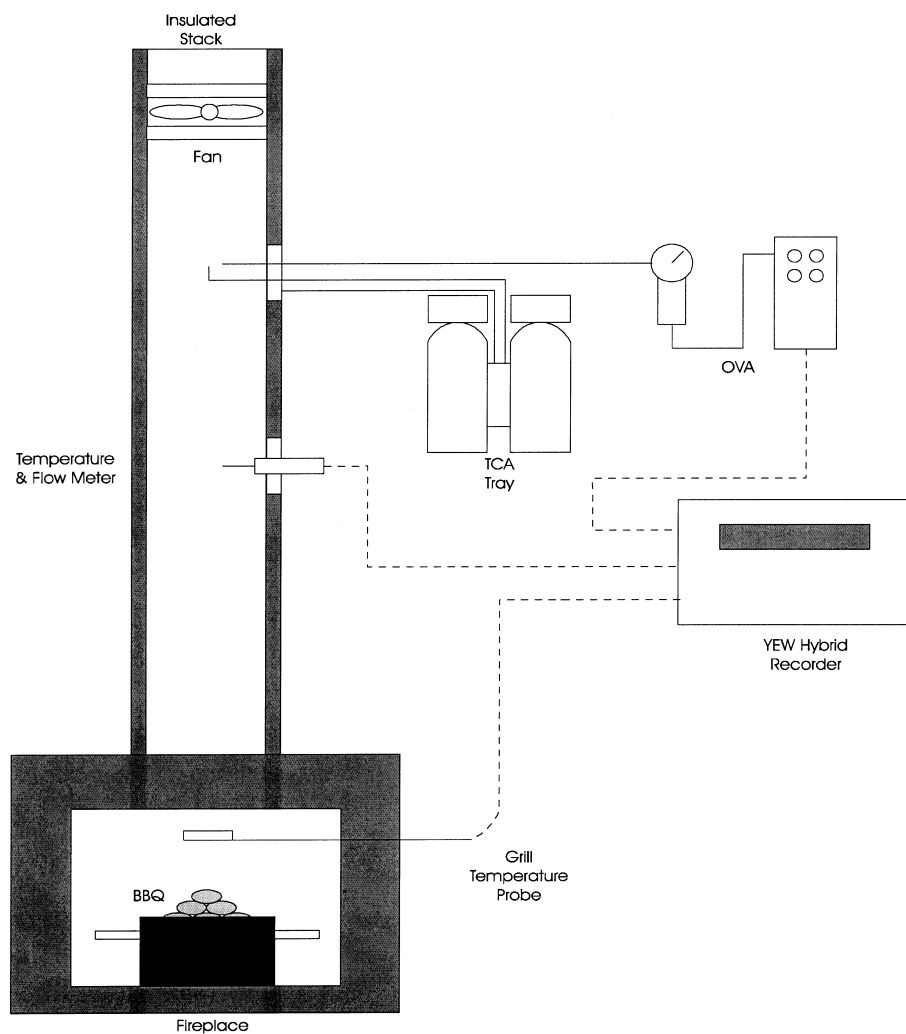
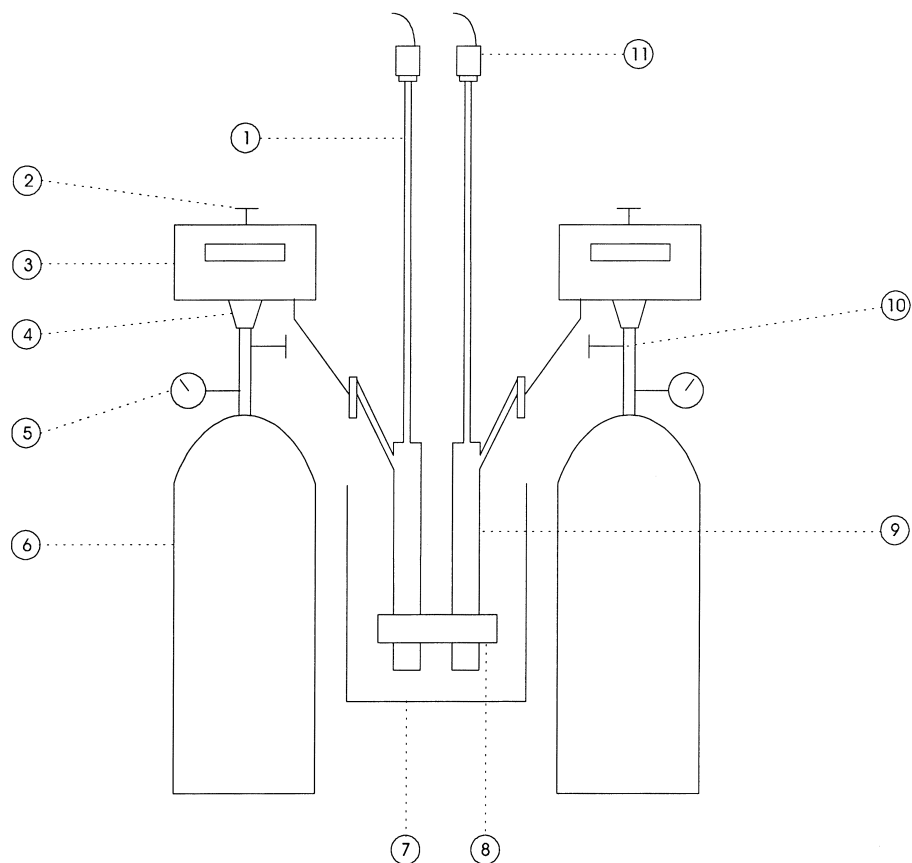


Figure 3. Sampling Apparatus Set-up with Chart Recorder

950155C-ja-RP



- | | |
|--|-----------------------------------|
| 1. Sampling Probe | 7. Condensate Trap Container |
| 2. Flow Rate Control Valve | 8. Heat Sink Trap |
| 3. Minihelic Differential Pressure Gauge | 9. Condensate Trap |
| 4. Vacuum Regulator | 10. Sample Flow Valve |
| 5. Vacuum Gauge | 11. Two Micron Particulate Filter |
| 6. Evacuated Tank | |

Figure 4. Sampling Apparatus for Organics

9501.56C-ja-RTP

Subpart D—National Volatile Organic Compound Emission Standards for Architectural Coatings

SOURCE: 63 FR 48877, Sept. 11, 1998, unless otherwise noted.

§ 59.400 Applicability and compliance dates.

(a) Except as provided in paragraphs (b) and (c) of this section, the provisions of this subpart apply to each architectural coating manufactured on or after September 13, 1999 for sale or distribution in the United States.

(b) For any architectural coating registered under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Section 136, *et seq.*), the provisions of this subpart apply to any such coating manufactured on or after March 13, 2000 for sale or distribution in the United States.

(c) The provisions of this subpart do not apply to any architectural coating described in paragraphs (c)(1) through (c)(5) of this section:

(1) A coating that is manufactured for sale or distribution to architectural coating markets outside the United States; such a coating must not be sold or distributed within the United States as an architectural coating.

(2) A coating that is manufactured prior to September 13, 1999.

(3) A coating that is sold in a non-refillable aerosol container.

(4) A coating that is collected and redistributed at a paint exchange.

(5) A coating that is sold in a container with a volume of one liter or less.

§ 59.401 Definitions.

Act means the Clean Air Act (42 U.S.C. 7401, *et seq.*, as amended by Pub. L. 101–549, 104 Stat. 2399).

Adhesive means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means. Under this subpart, adhesives are not considered coatings.

Administrator means the Administrator of the United States Environmental Protection Agency (U.S. EPA) or an authorized representative.

Antenna coating means a coating formulated and recommended for application to equipment and associated structural appurtenances that are used to receive or transmit electromagnetic signals.

Anti-fouling coating means a coating formulated and recommended for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms, including, but not limited to, coatings registered with the EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Section 136, *et seq.*) and nontoxic foul-release coatings.

Anti-graffiti coating means a clear or opaque high performance coating formulated and recommended for application to interior and exterior walls, doors, partitions, fences, signs, and murals to deter adhesion of graffiti and to resist repeated scrubbing and exposure to harsh solvents, cleansers, or scouring agents used to remove graffiti.

Appurtenance means any accessory to a stationary structure, whether installed or detached at the proximate site of installation, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lamp posts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

Architectural coating means a coating recommended for field application to stationary structures and their appurtenances, to portable buildings, to pavements, or to curbs. This definition excludes adhesives and coatings recommended by the manufacturer or importer solely for shop applications or solely for application to non-stationary structures, such as airplanes, ships, boats, and railcars.

Below-ground wood preservative means a coating that is formulated and recommended to protect below-ground wood from decay or insect attack and that is registered with the EPA under the Federal Insecticide, Fungicide, and

Rodenticide Act (7 U.S.C. Section 136, *et seq.*).

Bituminous coating and mastic means a coating or mastic formulated and recommended for roofing, pavement sealing, or waterproofing that incorporates bitumens. Bitumens are black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits of asphalt or as residues from the distillation of crude petroleum or coal.

Bond breaker means a coating formulated and recommended for application between layers of concrete to prevent a freshly poured top layer of concrete from bonding to the layer over which it is poured.

Calimine recoater means a flat solventborne coating formulated and recommended specifically for recoating calimine-painted ceilings and other calimine-painted substrates.

Chalkboard resurfacer means a coating formulated and recommended for application to chalkboards to restore a suitable surface for writing with chalk.

Clear means allowing light to pass through, so that the substrate may be distinctly seen.

Coating means a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealants, inks, maskants, and temporary coatings. Protective, decorative, or functional materials that consist only of solvents, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

Colorant means a concentrated pigment dispersion of water, solvent, and/or binder that is added to an architectural coating in a paint store or at the site of application to produce the desired color.

Concrete curing compound means a coating formulated and recommended for application to freshly placed concrete to retard the evaporation of water.

Concrete curing and sealing compound means a liquid membrane-forming compound marketed and sold solely for application to concrete surfaces to re-

duce the loss of water during the hardening process and to seal old and new concrete providing resistance against alkalis, acids, and ultraviolet light, and provide adhesion promotion qualities. The coating must meet the requirements of American Society for Testing and Materials (ASTM) C 1315-95, Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete (incorporated by reference—see § 59.412 of this subpart).

Concrete protective coating means a high-build coating, formulated and recommended, for application in a single coat over concrete, plaster, or other cementitious surfaces. These coatings are formulated to be primerless, one-coat systems that can be applied over form oils and/or uncured concrete. These coatings prevent spalling of concrete in freezing temperatures by providing long-term protection from water and chloride ion intrusion.

Concrete surface retarder means a mixture of retarding ingredients such as extender pigments, primary pigments, resin, and solvent that interact chemically with the cement to prevent hardening on the surface where the retarder is applied, allowing the retarded mix of cement and sand at the surface to be washed away to create an exposed aggregate finish.

Container means the individual receptacle that holds the coating for storage and/or sale or distribution.

Conversion varnish means a clear acid curing coating with an alkyd or other resin blended with amino resins and supplied as a single component or two-component product. Conversion varnishes produce a hard, durable, clear finish designed for professional application to wood flooring. The film formation is the result of an acid-catalyzed condensation reaction, affecting a transesterification at the reactive ethers of the amino resins.

Dry fog coating means a coating formulated and recommended only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

Exempt compounds means specific organic compounds that are not considered volatile organic compounds (VOC)

due to negligible photochemical reactivity. The exempt compounds are specified in 40 CFR 51.100.

Exterior coating means an architectural coating formulated and recommended for use in conditions exposed to the weather.

Extreme high durability coating means an air dry coating, including a fluoropolymer-based coating, that is formulated and recommended for touchup of precoated architectural aluminum extrusions and panels and to ensure the protection of architectural subsections, and that meets the weathering requirements of American Architectural Manufacturer's Association (AAMA) specification 605-98, Voluntary Specification Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels, Section 7.9 (incorporated by reference—see § 59.412 of this subpart).

Faux-finishing/glazing means a coating used for wet-in-wet techniques, such as faux woodgrain, faux marble, and simulated aging, which require the finish to remain wet for an extended period of time.

Fire-retardant/resistive coating means a coating formulated and recommended to retard ignition and flame spread, or to delay melting or structural weakening due to high heat, that has been fire tested and rated by a certified laboratory for use in bringing buildings and construction materials into compliance with Federal, State, and local building code requirements.

Flat coating means a coating that is not defined under any other definition in this section and that registers gloss less than 15 on an 85-degree meter or less than 5 on a 60-degree meter according to ASTM Method D 523-89, Standard Test Method for Specular Gloss (incorporated by reference—see § 59.412 of this subpart).

Floor coating means an opaque coating with a high degree of abrasion resistance that is formulated and recommended for application to flooring including, but not limited to, decks, porches, and steps in a residential setting.

Flow coating means a coating that is used by electric power companies or their subcontractors to maintain the

protective coating systems present on utility transformer units.

Form release compound means a coating formulated and recommended for application to a concrete form to prevent the freshly placed concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.

Graphic arts coating or sign paint means a coating formulated and recommended for hand-application by artists using brush or roller techniques to indoor or outdoor signs (excluding structural components) and murals including lettering enamels, poster colors, copy blockers, and bulletin enamels.

Heat reactive coating means a high performance phenolic-based coating requiring a minimum temperature of 191 °C (375 °F) to 204 °C (400 °F) to obtain complete polymerization or cure. These coatings are formulated and recommended for commercial and industrial use to protect substrates from degradation and maintain product purity in which one or more of the following extreme conditions exist:

- (1) Continuous or repeated immersion exposure of 90 to 98 percent sulfuric acid, or oleum;
- (2) Continuous or repeated immersion exposure to strong organic solvents;
- (3) Continuous or repeated immersion exposure to petroleum processing at high temperatures and pressures; and
- (4) Continuous or repeated immersion exposure to food or pharmaceutical products which may or may not require high temperature sterilization.

High temperature coating means a high performance coating formulated and recommended for application to substrates exposed continuously or intermittently to temperatures above 202°C (400°F).

Impacted immersion coating means a high performance maintenance coating formulated and recommended for application to steel structures subject to immersion in turbulent, debris-laden water. These coatings are specifically resistant to high-energy impact damage caused by floating ice or debris.

Imported means that a coating manufactured outside the United States has been brought into the United States for sale or distribution.

Importer means a person that brings architectural coatings into the United States for sale or distribution within the United States. This definition does not include any person that brings a coating into the United States and repackages the coating by transferring it from one container to another, provided the coating VOC content is not altered and the coating is not sold or distributed to another party. For purposes of applying this definition, divisions of a company, subsidiaries, and parent companies are considered to be a single importer.

Industrial maintenance coating means a high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats formulated and recommended for application to substrates exposed to one or more of the following extreme environmental conditions in an industrial, commercial, or institutional setting:

- (1) Immersion in water, wastewater, or chemical solutions (aqueous and nonaqueous solutions), or chronic exposure of interior surfaces to moisture condensation;
- (2) Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;
- (3) Repeated exposure to temperatures above 120 °C (250 °F);
- (4) Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or
- (5) Exterior exposure of metal structures and structural components.

Interior clear wood sealer means a low viscosity coating formulated and recommended for sealing and preparing porous wood by penetrating the wood and creating a uniform smooth substrate for a finish coat of paint or varnish.

Interior coating means an architectural coating formulated and recommended for use in conditions not exposed to natural weathering.

Label means any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or appearing upon any architectural coating con-

tainer for purposes of branding, identifying, or giving information with respect to the product, use of the product, or contents of the container.

Lacquer means a clear or pigmented wood finish, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film. Lacquer stains are considered stains, not lacquers.

Low solids means containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material and for which at least half of the volatile component is water.

Magnesite cement coating means a coating formulated and recommended for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

Manufactured means that coating ingredients have been combined and put into containers that have been labeled and made available for sale or distribution.

Manufacturer means a person that produces, packages, or repackages architectural coatings for sale or distribution in the United States. A person that repackages architectural coatings as part of a paint exchange, and does not produce, package, or repackage any other architectural coatings for sale or distribution in the United States, is excluded from this definition. A person that repackages a coating by transferring it from one container to another is excluded from this definition, provided the coating VOC content is not altered and the coating is not sold or distributed to another party. For purposes of applying this definition, divisions of a company, subsidiaries, and parent companies are considered to be a single manufacturer.

Mastic texture coating means a coating formulated and recommended to cover holes and minor cracks and to conceal surface irregularities, and is applied in a single coat of at least 10 mils (0.010 inch) dry film thickness.

Megagram means one million grams or 1.102 tons.

Metallic pigmented coating means a nonbituminous coating containing at least 0.048 kilogram of metallic pigment per liter of coating (0.4 pound per

gallon) including, but not limited to, zinc pigment.

Multi-colored coating means a coating that is packaged in a single container and exhibits more than one color when applied.

Nonferrous ornamental metal lacquers and surface protectant means a clear coating formulated and recommended for application to ornamental architectural metal substrates (bronze, stainless steel, copper, brass, and anodized aluminum) to prevent oxidation, corrosion, and surface degradation.

Nonflat coating means a coating that is not defined under any other definition in this section and that registers a gloss of 15 or greater on an 85-degree meter or 5 or greater on a 60-degree meter according to ASTM Method D 523–89, Standard Test Method for Specular Gloss (incorporated by reference—see § 59.412 of this subpart).

Nuclear coating means a protective coating formulated and recommended to seal porous surfaces such as steel (or concrete) that otherwise would be subject to intrusion by radioactive materials. These coatings must be resistant to long-term (service life) cumulative radiation exposure (ASTM Method D 4082–89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants (incorporated by reference—see § 59.412 of this subpart)), relatively easy to decontaminate, and resistant to various chemicals to which the coatings are likely to be exposed (ASTM Method D 3912–80 (Reapproved 1989), Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants (incorporated by reference—see § 59.412 of this subpart)).

Opaque means not allowing light to pass through, so that the substrate is concealed from view.

Paint exchange means a program in which consumers, excluding architectural coating manufacturers and importers, may drop off and pick up usable post-consumer architectural coatings in order to reduce hazardous waste.

Person means an individual, corporation, partnership, association, State municipality, political subdivision of a State, and any agency, department, or instrumentality of the United States

and any officer, agent, or employee thereof.

Pigmented means containing finely ground insoluble powder used to provide one or more of the following properties: color; corrosion inhibition; conductivity; fouling resistance; opacity; or improved mechanical properties.

Post-consumer coating means an architectural coating that has previously been purchased by a consumer or distributed to a consumer but not applied, and reenters the marketplace to be purchased by or distributed to a consumer. Post-consumer coatings include, but are not limited to, coatings collected during hazardous waste collection programs for repackaging or blending with virgin coating materials.

Pretreatment wash primer means a primer that contains a minimum of 0.5 percent acid, by weight, that is formulated and recommended for application directly to bare metal surfaces in thin films to provide corrosion resistance and to promote adhesion of subsequent topcoats.

Primer means a coating formulated and recommended for application to a substrate to provide a firm bond between the substrate and subsequent coatings.

Quick-dry enamel means a nonflat coating that has the following characteristics:

(1) Is capable of being applied directly from the container under normal conditions with ambient temperatures between 16 and 27°C (60 and 80°F);

(2) When tested in accordance with ASTM Method D 1640–83 (Reapproved 1989), Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature (incorporated by reference—see § 59.412), sets to touch in 2 hours or less, is tack free in 4 hours or less, and dries hard in 8 hours or less by the mechanical test method; and

(3) Has a dried film gloss of 70 or above on a 60 degree meter.

Quick-dry primer, sealer, and undercoater means a primer, sealer, or undercoater that is dry to the touch in a ½ hour and can be recoated in 2 hours when tested in accordance with ASTM Method D 1640–83 (Reapproved 1989), Standard Test Methods for Drying, Curing, or Film Formation of Organic

Coatings at Room Temperature (incorporated by reference—see § 59.412 of this subpart).

Recycled coating means an architectural coating that contains some portion of post-consumer coating. Recycled architectural coatings include, but are not limited to, post-consumer coatings that have been repackaged or blended with virgin coating materials.

Repackage means to transfer an architectural coating from one container to another.

Repair and maintenance thermoplastic coating means an industrial maintenance coating that has vinyl or chlorinated rubber as a primary resin and is recommended solely for the repair of existing vinyl or chlorinated rubber coatings without the full removal of the existing coating system.

Roof coating means a coating formulated and recommended for application to exterior roofs for the primary purpose of preventing penetration of the substrate by water or reflecting heat and reflecting ultraviolet radiation. This does not include thermoplastic rubber coatings.

Rust preventative coating means a coating formulated and recommended for use in preventing the corrosion of ferrous metal surfaces in residential situations.

Sanding sealer means a clear wood coating formulated and recommended for application to bare wood to seal the wood and to provide a coat that can be sanded to create a smooth surface. A sanding sealer that also meets the definition of a lacquer is not included in this category, but is included in the lacquer category.

Sealer means a coating formulated and recommended for application to a substrate for one or more of the following purposes: to prevent subsequent coatings from being absorbed by the substrate; to prevent harm to subsequent coatings by materials in the substrate; to block stains, odors, or efflorescence; to seal fire, smoke, or water damage; or to condition chalky surfaces.

Semitransparent means not completely concealing the surface of a substrate or its natural texture or grain pattern.

Shellac means a clear or pigmented coating formulated with natural resins (except nitrocellulose resins) soluble in alcohol (including, but not limited to, the resinous secretions of the lac beetle, *Lacifera lacca*). Shellacs dry by evaporation without chemical reaction and provide a quick-drying, solid protective film that may be used for blocking stains.

Shop application means that a coating is applied to a product or a component of a product in a factory, shop, or other structure as part of a manufacturing, production, or repairing process (e.g., original equipment manufacturing coatings).

Stain means a coating that produces a dry film with minimal coloring. This includes lacquer stains.

Stain controller means a conditioner or pretreatment coating formulated and recommended for application to wood prior to the application of a stain in order to prevent uneven penetration of the stain.

Swimming pool coating means a coating formulated and recommended to coat the interior of swimming pools and to resist swimming pool chemicals.

Thermoplastic rubber coating and mastic means a coating or mastic formulated and recommended for application to roofing or other structural surfaces and that incorporates no less than 40 percent by weight of thermoplastic rubbers in the total resin solids and may also contain other ingredients including, but not limited to, fillers, pigments, and modifying resins.

Tint base means a coating to which colorant is added in a paint store or at the site of application to produce a desired color.

Traffic marking coating means a coating formulated and recommended for marking and striping streets, highways, or other traffic surfaces including, but not limited to, curbs, berms, driveways, parking lots, sidewalks, and airport runways.

Undercoater means a coating formulated and recommended to provide a smooth surface for subsequent coatings.

United States means the United States of America, including the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands,

Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

Varnish means a clear or semi-transparent coating, excluding lacquers and shellacs, formulated and recommended to provide a durable, solid, protective film. Varnishes may contain small amounts of pigment to color a surface, or to control the final sheen or gloss of the finish.

Volatile organic compound or *VOC* means any organic compound that participates in atmospheric photochemical reactions, that is, any organic compound other than those which the Administrator designates as having negligible photochemical reactivity. For a list of compounds that the Administrator has designated as having negligible photochemical reactivity, also referred to as exempt compounds, refer to 40 CFR 51.100(s).

VOC content means the weight of VOC per volume of coating, calculated according to the procedures in § 59.406(a) of this subpart.

Waterproofing sealer and treatment means a coating formulated and recommended for application to a porous substrate for the primary purpose of preventing the penetration of water.

Wood preservative means a coating formulated and recommended to protect exposed wood from decay or insect attack, registered with the EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Section 136, *et seq.*).

Zone marking coating means a coating formulated and recommended for marking and striping driveways, parking lots, sidewalks, curbs, or airport runways, and sold or distributed in a container with a volume of 19 liters (5 gallons) or less.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.402 VOC content limits.

(a) Each manufacturer and importer of any architectural coating subject to this subpart shall ensure that the VOC content of the coating does not exceed the applicable limit in table 1 of this subpart, except as provided in §§ 59.403 and 59.404 of this subpart. Compliance with the VOC content limits will be de-

termined based on the VOC content, as expressed in metric units.

(b) Except as provided in paragraph (c) of this section, if anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or importer or anyone acting on their behalf, any representation is made that indicates that the coating meets the definition of more than one of the coating categories listed in table 1 of this subpart, then the most restrictive VOC content limit shall apply.

(c) The provision in paragraph (b) of this section does not apply to the coatings described in paragraphs (c)(1) through (c)(15) of this section.

(1) High temperature coatings that also meet the definition for metallic pigmented coatings are subject only to the VOC content limit in table 1 of this subpart for high temperature coatings.

(2) Lacquer coatings (including lacquer sanding sealers) that are also recommended for use in other architectural coating applications to wood, except as stains, are subject only to the VOC content limit in table 1 of this subpart for lacquers.

(3) Metallic pigmented coatings that also meet the definition for roof coatings, industrial maintenance coatings, or primers are subject only to the VOC content limit in table 1 of this subpart for metallic pigmented coatings.

(4) Shellacs that also meet the definition for any other architectural coating are subject only to the VOC content limit in table 1 of this subpart for shellacs.

(5) Fire-retardant/resistive coatings that also meet the definition for any other architectural coating are subject only to the VOC content limit in table 1 of this subpart for fire-retardant/resistive coatings.

(6) Pretreatment wash primers that also meet the definition for primers or that meet the definition for industrial maintenance coatings are subject only to the VOC content limit in table 1 of this subpart for pretreatment wash primers.

(7) Industrial maintenance coatings that also meet the definition for primers, sealers, undercoaters, or mastic

Environmental Protection Agency

§ 59.403

texture coatings are subject only to the VOC content limit in table 1 of this subpart for industrial maintenance coatings.

(8) Varnishes and conversion varnishes that also meet the definition for floor coatings are subject only to the VOC content limit in table 1 of this subpart for varnishes and conversion varnishes, respectively.

(9) Anti-graffiti coatings, high temperature coatings, impacted immersion coatings, thermoplastic rubber coatings and mastics, repair and maintenance thermoplastic coatings, and flow coatings that also meet the definition for industrial maintenance coatings are subject only to the VOC content limit in table 1 of this subpart for their respective categories (i.e., they are not subject to the industrial maintenance coatings VOC content limit in table 1 of this subpart).

(10) Waterproofing sealers and treatments that also meet the definition for quick-dry sealers are subject only to the VOC content limit in table 1 of this subpart for waterproofing sealers and treatments.

(11) Sanding sealers that also meet the definition for quick-dry sealers are subject only to the VOC content limit in table 1 of this subpart for sanding sealers.

(12) Nonferrous ornamental metal lacquers and surface protectants that also meet the definition for lacquers are subject only to the VOC content limit in table 1 of this subpart for nonferrous ornamental metal lacquers and surface protectants.

(13) Quick-dry primers, sealers, and undercoaters that also meet the definition for primers, sealers, or undercoaters are subject only to the

VOC content limit in table 1 of this subpart for quick-dry primers, sealers, and undercoaters.

(14) Antenna coatings that also meet the definition for industrial maintenance coatings or primers are subject only to the VOC content limit in table 1 of this subpart for antenna coatings.

(15) Bituminous coatings and mastics that also meet the definition for any other architectural coatings are subject only to the VOC content limit in table 1 of this subpart for bituminous coatings and mastics.

(16) Zone marking coatings that also meet the definition for traffic marking coatings are subject only to the VOC content limit in table 1 of this subpart for zone marking coatings.

(17) Rust preventative coatings that also meet the definition for primers or undercoaters are subject only to the VOC content limit in table 1 of this subpart for rust preventative coatings.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.403 Exceedance fees.

(a) Except as provided in § 59.404 of this subpart, each manufacturer and importer of any architectural coating subject to the provisions of this subpart may exceed the applicable VOC content limit in table 1 of this subpart for the coating if the manufacturer or importer pays an annual exceedance fee. The exceedance fee must be calculated using the procedures in paragraphs (b) and (c) of this section.

(b) The exceedance fee paid by a manufacturer or importer, which is equal to the sum of the applicable exceedance fees for all coatings, must be calculated using equation 1 as follows:

$$\text{Annual Exceedance Fee} = \sum_{c=1}^n \text{Coating Fee}_c \quad (1)$$

Where:

Annual Exceedance Fee=The total annual exceedance fee for a manufacturer or importer, in dollars.

Coating Fee_c=The annual exceedance fee for each coating (c), for which a fee applies, in dollars.

n=number of coatings to which a fee applies.

(c) The exceedance fee to be paid for each coating must be determined using equation 2 as follows:

$$\text{Coating Fee}_c = \text{Fee Rate} \times \text{Excess VOC} \times \text{Volume Manufactured or Imported} \quad (2)$$

Where:

Fee Rate = The rate of \$0.0028 per gram of excess VOC.

Excess VOC = The VOC content of the coating, or adjusted VOC content of a recycled coating (if applicable), in grams of VOC per liter of coating, minus the applicable VOC content limit from table 1 of this subpart (that is, VOC content of the coating minus VOC content limit).

Volume Manufactured or Imported = The volume of the coating manufactured or imported per year, in liters, including the volume of any water and exempt compounds and excluding the volume of any colorant added to tint bases. Any volume for which a tonnage exemption is claimed under § 59.404 of this subpart is also excluded.

(d) The exceedance fee shall be submitted to EPA by March 1 following the calendar year in which the coatings are manufactured or imported and shall be sent to the address provided in § 59.409(b).

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999, as amended at 65 FR 7737, Feb. 16, 2000]

§ 59.404 Tonnage exemption.

(a) Each manufacturer and importer of any architectural coating subject to the provisions of this subpart may designate a limited quantity of coatings to be exempt from the VOC content limits in table 1 of this subpart and the exceedance fee provisions of § 59.403 of this subpart, provided all of the requirements in paragraphs (a)(1) through (a)(4) of this section are met.

(1) The total amount of VOC contained in all the coatings selected for exemption must be equal to or less

than 23 megagrams (25 tons) for the period of time from September 13, 1999 through December 31, 2000; 18 megagrams (20 tons) in the year 2001; and 9 megagrams (10 tons) per year in the year 2002 and each subsequent year. The amount of VOC contained in each coating shall be calculated using the procedure in paragraph (b) of this section. Compliance with the tonnage exemption will be determined based on the amount of VOC, as expressed in metric units.

(2) The container labeling requirements of § 59.405 of this subpart.

(3) The recordkeeping requirements of § 59.407(c) of this subpart.

(4) The reporting requirements of § 59.408(b) and (e) of this subpart.

(b) Each manufacturer and importer choosing to use the exemption described in paragraph (a) of this section must use equations 3 and 4 to calculate the total amount of VOC for each time period the exemption is elected. The VOC amount shall be determined without colorant that is added after the tint base is manufactured or imported.

$$\text{Total VOC} = \sum_{c=1}^n \text{VOC}_c \quad (3)$$

Where:

Total VOC = Total megagrams of VOC contained in all coatings being claimed under the exemption.

VOC_c = Megagrams of VOC, for each coating (c) claimed under the exemption, as computed by equation 4.

n = Number of coatings for which exemption is claimed.

$$\text{VOC}_c = (\text{Volume Manufactured or Imported}) * (\text{VOC Amount}) / 1 \times 10^6 \quad (4)$$

Where:

Volume Manufactured or Imported = Volume of the coating manufactured or imported, in liters, including the volume of any water and exempt compounds and excluding the volume of any colorant added to tint bases, for the time period the exemption is claimed.

VOC Amount = Grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any water and exempt compounds.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.405 Container labeling requirements.

(a) Each manufacturer and importer of any architectural coating subject to the provisions of this subpart shall provide the information listed in paragraphs (a)(1) through (a)(3) of this section on the coating container in which the coating is sold or distributed.

(1) The date the coating was manufactured, or a date code representing the date shall be indicated on the label, lid, or bottom of the container.

(2) A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.

(3) The VOC content of the coating as described in paragraph (a)(3)(i) or (a)(3)(ii) of this section shall be indicated on the label or lid of the container.

(i) The VOC content of the coating, displayed in units of grams of VOC per liter of coating or in units of pounds of VOC per gallon of coating; or

(ii) The VOC content limit in table 1 of this subpart with which the coating is required to comply and does comply, displayed in units of grams of VOC per liter of coating or in units of pounds of VOC per gallon of coating.

(b) In addition to the information specified in paragraph (a) of this section, each manufacturer and importer of any industrial maintenance coating subject to the provisions of this subpart shall display on the label or lid of the container in which the coating is sold or distributed one or more of the descriptions listed in paragraphs (b)(1) through (b)(4) of this section.

(1) "For industrial use only."

(2) "For professional use only."

(3) "Not for residential use" or "Not intended for residential use."

(4) "This coating is intended for use under the following condition(s):" (Include each condition in paragraphs (b)(4)(i) through (b)(4)(v) of this section that applies to the coating.)

(i) Immersion in water, wastewater, or chemical solutions (aqueous and nonaqueous solutions), or chronic exposure of interior surfaces to moisture condensation;

(ii) Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;

(iii) Repeated exposure to temperatures above 120° C (250° F);

(iv) Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or

(v) Exterior exposure of metal structures and structural components.

(c) In addition to the information specified in paragraph (a) of this section, each manufacturer and importer of any recycled coating who calculates the VOC content using equations 7 and 8 in § 59.406(a)(3) of this subpart shall include the following statement indicating the post-consumer coating content on the label or lid of the container in which the coating is sold or distributed: "CONTAINS NOT LESS THAN X PERCENT BY VOLUME POST-CONSUMER COATING," where "X" is replaced by the percent by volume of post-consumer architectural coating.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.406 Compliance provisions.

(a) For the purpose of determining compliance with the VOC content limits in table 1 of this subpart, each manufacturer and importer shall determine the VOC content of a coating using the procedures described in paragraph (a)(1), (a)(2), or (a)(3) of this section, as appropriate. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured or imported.

(1) With the exception of low solids stains and low solids wood preservatives, determine the VOC content in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water and exempt compounds. Calculate the VOC content using equation 5 as follows:

$$\text{VOC Content} = \frac{(W_s - W_w - W_{ec})}{(V_m - V_w - V_{ec})} \quad (5)$$

Where:

VOC content = grams of VOC per liter of coating

W_s = weight of volatiles, in grams

W_w = weight of water, in grams

W_{ec} = weight of exempt compounds, in grams

V_m = volume of coating, in liters

V_w = volume of water, in liters

V_{ec} = volume of exempt compounds, in liters

(2) For low solids stains and low solids wood preservatives, determine the VOC content in units of grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any water and exempt compounds. Calculate the VOC content using equation 6 as follows:

$$\text{VOC Content}_{1s} = \frac{(W_s - W_w - W_{ec})}{(V_m)} \quad (6)$$

Where:

VOC content $_{1s}$ = the VOC content of a low solids coating in grams of VOC per liter of coating

W_s = weight of volatiles, in grams

W_w = weight of water, in grams

W_{ec} = weight of exempt compounds, in grams

V_m = volume of coating, in liters

(3) For recycled coatings, the manufacturer or importer has the option of calculating an adjusted VOC content to account for the post-consumer coating content. If this option is used, the manufacturer or importer shall determine the adjusted VOC content using equations 7 and 8 as follows:

$$\text{Adjusted VOC Content} = \text{Actual VOC Content} - \left(\text{Actual VOC Content} \left(\frac{\text{Percent Post-consumer Coating}}{100} \right) \right) \quad (7)$$

Where:

Adjusted VOC content = The VOC content assigned to the recycled coating for purposes of complying with the VOC content limits in table 1 of this subpart.

Actual VOC content = The VOC content of the coating as determined using equation 5 in paragraph (a)(1) of this section.

Percent Post-consumer Coating = The volume percent of a recycled coating that is post-consumer coating materials (as determined in equation 8)

$$\text{Percent Post-consumer Coating} = \frac{\text{Volume of Post-consumer Coating}}{(\text{Volume of Post-consumer Coating} + \text{Volume of Virgin Materials})} \times 100 \text{ Percent} \quad (8)$$

Where:

Percent Post-consumer Coating = The volume percent of a recycled coating that is post-consumer coating materials.

Volume of Post-consumer Coating = The volume, in liters, of post-consumer coating materials used in the production of a recycled coating.

Volume of Virgin Materials = The volume, in liters, of virgin coating materials used in the production of a recycled coating.

(b) To determine the composition of a coating in order to perform the calculations in paragraph (a) of this section, the reference method for VOC content is Method 24 of appendix A of 40 CFR part 60, except as provided in paragraphs (c) and (d) of this section.

To determine the VOC content of a coating, the manufacturer or importer may use Method 24 of appendix A of 40 CFR part 60, an alternative method as provided in paragraph (c) of this section, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except as provided in paragraph (c) of this section. The Administrator may

require the manufacturer or importer to conduct a Method 24 analysis.

(c) The Administrator may approve, on a case-by-case basis, a manufacturer's or importer's use of an alternative method in lieu of Method 24 for determining the VOC content of coatings if the alternative method is demonstrated to the Administrator's satisfaction to provide results that are acceptable for purposes of determining compliance with this subpart.

(d) Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to the procedures specified in appendix A to this subpart. Appendix A to this subpart is a modification of Method 24 of appendix A of 40 CFR part 60. The modification of Method 24 provided in appendix A to this subpart has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.

(e) The Administrator may determine a manufacturer's or importer's compliance with the provisions of this subpart based on information required by this subpart (including the records and reports required by §§ 59.407 and 59.408 of this subpart) or any other information available to the Administrator.

§ 59.407 Recordkeeping requirements.

(a) Each manufacturer and importer using the provisions of § 59.406(a)(3) of this subpart to determine the VOC content of a recycled coating shall maintain in written or electronic form records of the information specified in paragraphs (a)(1) through (a)(6) of this section for a period of 3 years.

(1) The minimum volume percent post-consumer coating content for each recycled coating.

(2) The volume of post-consumer coating received for recycling.

(3) The volume of post-consumer coating received that was unusable.

(4) The volume of virgin materials.

(5) The volume of the final recycled coating manufactured or imported.

(6) Calculations of the adjusted VOC content as determined using equation 7 in § 59.406(a)(3) of this subpart for each recycled coating.

(b) Each manufacturer and importer using the exceedance fee provisions in § 59.403 of this subpart, as an alternative to achieving the VOC content limits in table 1 of this subpart, shall maintain in written or electronic form the records specified in paragraphs (b)(1) through (b)(7) of this section for a period of 3 years.

(1) A list of the coatings and the associated coating categories in table 1 of this subpart for which the exceedance fee is used.

(2) Calculations of the annual fee for each coating and the total annual fee for all coatings using the procedure in § 59.403 (b) and (c) of this subpart.

(3) The VOC content of each coating in grams of VOC per liter of coating.

(4) The excess VOC content of each coating in grams of VOC per liter of coating.

(5) The total volume of each coating manufactured or imported per calendar year, in liters, including the volume of any water and exempt compounds and excluding the volume of any colorant added to tint bases.

(6) The annual fee for each coating.

(7) The total annual fee for all coatings.

(c) Each manufacturer and importer claiming the tonnage exemption in § 59.404 of this subpart shall maintain in written or electronic form the records specified in paragraphs (c)(1) through (c)(4) of this section for a period of 3 years.

(1) A list of all coatings and associated coating categories in table 1 of this subpart for which the exemption is claimed.

(2) The VOC amount as used in equation 4.

(3) The volume manufactured or imported, in liters, for each coating for which the exemption is claimed for the time period the exemption is claimed.

(4) The total megagrams of VOC contained in each coating for which the exemption is claimed, and for all coatings combined for which the exemption is claimed, for the time period the exemption is claimed, as calculated in § 59.404(b) of this subpart.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.408 Reporting requirements.

(a) Each manufacturer and importer of any architectural coating subject to the provisions of this subpart shall submit reports and exceedance fees specified in this section to the appropriate address as listed in § 59.409 of this subpart.

(b) Each manufacturer and importer of any architectural coating subject to the provisions of this subpart shall submit an initial notification report no later than the applicable compliance date specified in § 59.400, or within 180 days after the date that the first architectural coating is manufactured or imported, whichever is later. The initial report must include the information in paragraphs (b)(1) through (b)(3) of this section.

(1) The name and mailing address of the manufacturer or importer.

(2) The street address of each one of the manufacturer's or importer's facilities in the United States that is producing, packaging, or repackaging any architectural coating subject to the provisions of this subpart.

(3) A list of the categories from table 1 of this subpart for which the manufacturer's or importer's coatings meet the definitions in § 59.401 of this subpart.

(4) If a date code is used on a coating container to represent the date a coating was manufactured, as allowed in § 59.405(a)(1) of this subpart, the manufacturer or importer of the coating shall include an explanation of each date code in the initial notification report and shall submit an explanation of any new date code no later than 30 days after the new date code is first used on the container for a coating.

(c) Each manufacturer and importer of a recycled coating that chooses to determine the adjusted VOC content according to the provisions of § 59.406(a)(3) to demonstrate compliance with the applicable VOC content limit in table 1 of this subpart shall submit a report containing the information in paragraphs (c)(1) through (c)(5) of this section. The report must be submitted for each coating for which the adjusted VOC content is used to demonstrate compliance. This report must be submitted by March 1 of the year following any calendar year in which the

adjusted VOC content provision is used.

(1) The minimum volume percent post-consumer coating content for each recycled coating.

(2) The volume of post-consumer coating received for recycling.

(3) The volume of post-consumer coating received that was unusable.

(4) The volume of virgin materials used.

(5) The volume of the final recycled coating manufactured or imported.

(d) Each manufacturer and importer that uses the exceedance fee provisions of § 59.403 of this subpart shall report the information in paragraphs (d)(1) through (d)(7) of this section for each coating for which the exceedance fee provisions are used. This report and the exceedance fee payment must be submitted by March 1 following the calendar year in which the coating is manufactured or imported.

(1) Manufacturer's or importer's name and mailing address.

(2) A list of all coatings and the associated coating categories in table 1 of this subpart for which the exceedance fee provision is being used.

(3) The VOC content of each coating that exceeds the applicable VOC content limit in table 1 of this subpart.

(4) The excess VOC content of each coating in grams of VOC per liter of coating.

(5) The total volume of each coating manufactured or imported per calendar year, in liters, including the volume of any water and exempt compounds and excluding the volume of any colorant added to tint bases.

(6) The annual fee for each coating.

(7) The total annual fee for all coatings.

(e) Each manufacturer and importer of architectural coatings for which a tonnage exemption under § 59.404 of this subpart is claimed shall submit a report no later than March 1 of the year following the calendar year in which the exemption was claimed. The report must include the information in paragraphs (f)(1) through (f)(4) of this section.

(1) A list of all coatings and the associated coating categories in table 1 of this subpart for which the exemption was claimed.

Environmental Protection Agency

§ 59.411

(2) The VOC amount as used in equation 4.

(3) The volume manufactured or imported, in liters, for each coating for which the exemption is claimed for the time period the exemption is claimed.

(4) The total megagrams of VOC contained in all coatings for which the exemption was claimed for the time period the exemption was claimed, as calculated in § 59.404(b) of this subpart.

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999]

§ 59.409 Addresses of EPA Offices.

(a) Except for exceedance fee payments, each manufacturer and importer of any architectural coating subject to the provisions of this subpart shall submit all requests, reports, submittals, and other communications to the Administrator pursuant to this regulation to the Regional Office of the U.S. Environmental Protection Agency that serves the State or Territory in which the corporate headquarters of the manufacturer or importer resides. These areas are indicated in the following list of EPA Regional Offices:

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Office of Environmental Stewardship, Mailcode: SAA, One Congress Street, Boston, MA 02114-2023.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Division of Enforcement and Compliance Assistance, 290 Broadway, New York, NY 10007-1866.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air, Pesticides, and Toxics Management Division, 61 Forsyth Street, Atlanta, GA 30303.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), Director, Multimedia Planning and Permitting Division, 1445 Ross Avenue, Dallas, TX 75202-2733.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air, RCRA, and Toxics Division, 901 North 5th Street, Kansas City, KS 66101.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), Director, Office of Partnerships and Regulatory Assistance, 999 18th Street, Suite 500, Denver, Colorado 80202-2466.

EPA Region IX (American Samoa, Arizona, California, Guam, Hawaii, Nevada), Director, Air Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Oregon, Idaho, Washington), Director, Office of Air Quality, 1200 Sixth Avenue, Seattle, WA 98101.

(b) Each manufacturer and importer who uses the exceedance fee provisions of § 59.403 shall submit the exceedance fee payment required by § 59.408(d) to the following address: Environmental Protection Agency, AIM Exceedance Fees, Post Office Box 371293M, Pittsburgh, PA 15251. This address is for the fee payment only; the exceedance fee report required by § 59.408(d) is to be submitted to the appropriate EPA Regional Office listed in paragraph (a) of this section. The exceedance fee payment in the form of a check or money order must be made payable to "U.S. Environmental Protection Agency" or "US EPA."

[63 FR 48877, Sept. 11, 1998; 64 FR 35001, June 30, 1999, as amended at 65 FR 7737, Feb. 16, 2000]

§ 59.410 State authority.

The provisions of this subpart must not be construed in any manner to preclude any State or political subdivision thereof from:

(a) Adopting and enforcing any emissions standard or limitation applicable to a manufacturer or importer of architectural coatings; or

(b) Requiring the manufacturer or importer of architectural coatings to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of a facility for manufacturing an architectural coating.

§ 59.411 Circumvention.

Each manufacturer and importer of any architectural coating subject to the provisions of this subpart must not alter, destroy, or falsify any record or report, to conceal what would otherwise be noncompliance with this subpart. Such concealment includes, but is not limited to, refusing to provide the Administrator access to all required

§ 59.412

records and date-coding information, altering the VOC content of a coating batch, or altering the results of any required tests to determine VOC content.

§ 59.412 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference in the paragraphs noted in § 59.401. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any changes in these materials will be published in the FEDERAL REGISTER. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC 20460; at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(b) The materials listed below are available for purchase at the following address: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

(1) ASTM Method C 1315-95, Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete, incorporation by reference approved for § 59.401, *Concrete curing and sealing compound*.

(2) ASTM Method D 523-89, Standard Test Method for Specular Gloss, incorporation by reference approved for § 59.401, *Flat coating* and *Nonflat coating*.

(3) ASTM Method D 1640-83 (Re-approved 1989), Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature, incorporation by reference approved for § 59.401, *Quick-dry enamel* and *Quick-dry primer, sealer, and undercoater*.

40 CFR Ch. I (7-1-05 Edition)

(4) ASTM Method D 3912-80 (Re-approved 1989), Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, incorporation by reference approved for § 59.401, *Nuclear coating*.

(5) ASTM Method D 4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, incorporation by reference approved for § 59.401, *Nuclear coating*.

(c) The following material is available from the AAMA, 1827 Walden Office Square, Suite 104, Schaumburg, IL 60173.

(1) AAMA 605-98, Voluntary Specification Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels, incorporation by reference approved for § 59.401, *Extreme high durability coating*.

(2) [Reserved]

[63 FR 48877, Sept. 11, 1998, as amended at 69 FR 18803, Apr. 9, 2004]

§ 59.413 Availability of information and confidentiality.

(a) *Availability of information.* The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) *Confidentiality.* All confidential business information entitled to protection under section 114(c) of the Act that must be submitted or maintained by each manufacturer or importer of architectural coatings pursuant to this section shall be treated in accordance with 40 CFR part 2, subpart B.

APPENDIX A TO SUBPART D OF PART 59— DETERMINATION OF VOLATILE MATTER CONTENT OF METHACRYLATE MULTICOMPONENT COATINGS USED AS TRAFFIC MARKING COATINGS

1.0 PRINCIPLE AND APPLICABILITY

1.1 *Applicability.* This modification to Method 24 of appendix A of 40 CFR part 60 applies to the determination of volatile matter content of methacrylate multicomponent coatings used as traffic marking coatings.

Environmental Protection Agency

Pt. 59, Subpt. D, Table 1

1.2 Principle. A known amount of methacrylate multicomponent coating is dispersed in a weighing dish using a stirring device before the volatile matter is removed by heating in an oven.

2.0 PROCEDURE

2.1 Prepare about 100 milliliters (mL) of sample by mixing the components in a storage container, such as a glass jar with a screw top or a metal can with a cap. The storage container should be just large enough to hold the mixture. Combine the components (by weight or volume) in the ratio recommended by the manufacturer. Tightly close the container between additions and during mixing to prevent loss of volatile materials. Most manufacturers' mixing instructions are by volume. Because of possible error caused by expansion of the liquid when measuring the volume, it is recommended that the components be combined by weight. When weight is used to combine the components and the manufacturer's recommended ratio is by volume, the density must be determined by section 3.5 of Method 24 of appendix A of 40 CFR part 60.

2.2 Immediately after mixing, take aliquots from this 100 mL sample for determination of the total volatile content, water content, and density. To determine water content, follow section 3.4 of Method 24 of appendix A of 40 CFR part 60. To determine density, follow section 3.5 of Method 24. To determine total volatile content, use the apparatus and reagents described in section 3.8.2 of Method 24 and the following procedures:

2.2.1 Weigh and record the weight of an aluminum foil weighing dish and a metal paper clip. Using a syringe as specified in section 3.8.2.1 of Method 24, weigh to 1 milligrams (mg), by difference, a sample of coating into the weighing dish. For methacrylate multicomponent coatings used for traffic marking use 3.0 ± 0.1 g.

2.2.2 Add the specimen and use the metal paper clip to disperse the specimen over the surface of the weighing dish. If the material

forms a lump that cannot be dispersed, discard the specimen and prepare a new one. Similarly, prepare a duplicate. The sample shall stand for a minimum of 1 hour, but no more than 24 hours before being oven dried at 110 ± 5 degrees Celsius for 1 hour.

2.2.3 Heat the aluminum foil dishes containing the dispersed specimens in the forced draft oven for 60 minutes at 110 ± 5 degrees Celsius. Caution—provide adequate ventilation, consistent with accepted laboratory practice, to prevent solvent vapors from accumulating to a dangerous level.

2.2.4 Remove the dishes from the oven, place immediately in a desiccator, cool to ambient temperature, and weigh to within 1 mg. After weighing, break up the film of the coating using the metal paper clip. Weigh dish to within 1 mg. Return to forced draft oven for an additional 60 minutes at 110 ± 5 degrees Celsius.

2.2.5 Remove the dishes from the oven, place immediately in a desiccator, cool to ambient temperature, and weigh to within 1 mg.

2.2.6 Run analyses in pairs (duplicate sets for each coating mixture until the criterion in section 4.3 of Method 24 of appendix A of 40 CFR part 60 is met. Calculate the weight of volatile matter for each heating period following Equation 24-2 of Method 24 and record the arithmetic average. Add the arithmetic average for the two heating periods to obtain the weight fraction of the volatile matter.

3.0 DATA VALIDATION PROCEDURE

3.1 Follow the procedures in Section 4 of Method 24 of appendix A to 40 CFR part 60.

3.2 If more than 10 percent of the sample is lost when the sample is being broken up in 2.2.4, the sample is invalid.

4.0 CALCULATIONS

Follow the calculation procedures in Section 5 of Method 24 of appendix A of 40 CFR part 60.

TABLE 1 TO SUBPART D OF PART 59—VOLATILE ORGANIC COMPOUND (VOC), CONTENT LIMITS FOR ARCHITECTURAL COATINGS

[Unless otherwise specified, limits are expressed in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation excluding the volume of any water, exempt compounds, or colorant added to tint bases.]

Coating category	Grams VOC per liter	Pounds VOC per gallon ^a
Antenna coatings	530	4.4
Anti-fouling coatings	450	3.8
Anti-graffiti coatings	600	5.0
Bituminous coatings and mastics	500	4.2
Bond breakers	600	5.0
Calcimine recoater	475	4.0
Chalkboard resurfacing	450	3.8
Concrete curing compounds	350	2.9
Concrete curing and sealing compounds	700	5.8

Pt. 59, Subpt. D, Table 1

40 CFR Ch. I (7–1–05 Edition)

[Unless otherwise specified, limits are expressed in grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation excluding the volume of any water, exempt compounds, or colorant added to tint bases.]

Coating category	Grams VOC per liter	Pounds VOC per gallon ^a
Concrete protective coatings	400	3.3
Concrete surface retarders	780	6.5
Conversion varnish	725	6.0
Dry fog coatings	400	3.3
Extreme high durability coatings	800	6.7
Faux finishing/glazing	700	5.8
Fire-retardant/resistive coatings:		
Clear	850	7.1
Opaque	450	3.8
Flat coatings:		
Exterior coatings	250	2.1
Interior coatings	250	2.1
Floor coatings	400	3.3
Flow coatings	650	5.4
Form release compounds	450	3.8
Graphic arts coatings (sign paints)	500	4.2
Heat reactive coatings	420	3.5
High temperature coatings	650	5.4
Impacted immersion coatings	780	6.5
Industrial maintenance coatings	450	3.8
Lacquers (including lacquer sanding sealers)	680	5.7
Magnesite cement coatings	600	5.0
Mastic texture coatings	300	2.5
Metallic pigmented coatings	500	4.2
Multi-colored coatings	580	4.8
Nonferrous ornamental metal lacquers and surface protectants	870	7.3
Nonflat coatings:		
Exterior coatings	380	3.2
Interior coatings	380	3.2
Nuclear coatings	450	3.8
Pretreatment wash primers	780	6.5
Primers and undercoaters	350	2.9
Quick-dry coatings:		
Enamels	450	3.8
Primers, sealers, and undercoaters	450	3.8
Repair and maintenance thermoplastic coatings	650	5.4
Roof coatings	250	2.1
Rust preventative coatings	400	3.3
Sanding sealers (other than lacquer sanding sealers)	550	4.6
Sealers (including interior clear wood sealers)	400	3.3
Shellacs:		
Clear	730	6.1
Opaque	550	4.6
Stains:		
Clear and semitransparent	550	4.6
Opaque	350	2.9
Low solids	^b 120	^b 1.0
Stain controllers	720	6.0
Swimming pool coatings	600	5.0
Thermoplastic rubber coatings and mastics	550	4.6
Traffic marking coatings	150	1.3
Varnishes	450	3.8
Waterproofing sealers and treatments	600	5.0
Wood preservatives:		
Below ground wood preservatives	550	4.6
Clear and semitransparent	550	4.6
Opaque	350	2.9
Low solids	^b 120	^b 1.0
Zone marking coatings	450	3.8

^a English units are provided for information only. Compliance will be determined based on the VOC content limit, as expressed in metric units.

^b Units are grams of VOC per liter (pounds of VOC per gallon) of coating, including water and exempt compounds, thinned to the maximum thinning recommended by the manufacturer.

[63 FR 48877, Sept. 11, 1998; 63 FR 55175, Oct. 14, 1998; 63 FR 32103, June 15, 1999; 64 FR 35002, June 30, 1999]